

What Shall ^{the} High Schools Teach ?

1956 Yearbook

Association for Supervision and Curriculum Development

A department of the National Education Association

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ASSOCIATION FOR SUPERVISION AND CURRICULUM DEVELOPMENT

A department of the
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From the Association

MANY Americans take great pride in the American public high school. A uniquely American institution, it serves a higher proportion of adolescent youth than do the secondary schools of any other nation in the world. However, the high school is viewed as more than a product of democracy. It is a major instrument in many communities for bringing together in a common endeavor all of the children of all of the people and for helping each to take his place as a contributing member of our democratic enterprise.

In spite of the recognized successes of the high school as an institution serving a democracy, it is still young and it is still regarded as an experiment. The high school has never served perfectly. Although it is a young institution, some would attribute its weaknesses to its failure to keep step with the demands of present day living. During the great depression of the thirties and the years which followed, there were many who believed a major reconstruction of the high school was imminent. This has not occurred. Now, following the Second World War, there is more than the usual hesitancy in planning next steps for secondary schools. There is a shortage of new ideas, and forces of reaction, sometimes parading under new labels, are strong.

This yearbook is an attempt to deal with this situation. The authors seek to clarify some of the basic issues and problems which surround the crucial question of what the high school shall teach. Decisions on this point determine the methodology that is appropriate, the students who shall be permitted to succeed, and the role which the high school shall play in American life.

Teasing out the issues and making clear the alternatives is a difficult task, and each individual can do little more than reveal the problem as he sees it. Thoughtful consideration of these issues by all citizens and particularly by those concerned primarily with secondary education will make more certain the development of the kind of American secondary school which expresses the feelings of the times. This is a task in which wide participation is needed and this yearbook will serve well only if it stimulates others to do what the authors—each in his own way—have attempted, namely to state the issues and theoretical problems as they see them.

Many yearbooks of ASCD have focused very largely on what is widely regarded as being good practice for dealing with a particular problem or area. Sometimes the authors have exhorted their readers

to go and do likewise. The current yearbook departs from this pattern in that it has little direct consideration of practice or even of practical problems as usually defined. Its approach to the everyday matters of schooling is through a fundamental consideration of some of the theoretical issues on which there ultimately must be clarity if the secondary school is to reach maximum effectiveness.

It is to be hoped that this yearbook will stimulate a fundamental reappraisal of the course followed in the development of secondary education in America. If the volume can do this, it will have helped to move us a long way toward improved secondary education for youth in the years ahead.

The Executive Committee of the Association for Supervision and Curriculum Development, NEA, expresses sincere appreciation to each of the members of the 1956 Yearbook Committee and to the contributors who assisted the Committee in writing the final chapters. Especial recognition is due Arno A. Bellack, chairman, and Kenneth Hovet, co-chairman, for bringing this project to completion.

The Executive Committee expresses its regret that the untimely passing of Ruth Kotinsky prevented completion of her chapter, which was to have been a portion of this volume.

The ASCD Executive Committee expresses sincere thanks to Vernon E. Anderson, who served with the Yearbook Committee as continuing representative of the Executive Committee. Prudence Bostwick, Jane Franseth and John I. Goodlad worked creatively and constructively with the Yearbook Committee in revising its final draft.

George W. Denemark, executive secretary, ASCD, read the manuscript in its several stages and made many constructive editorial suggestions. Robert R. Leeper, associate secretary, ASCD, worked with the original manuscript, did final editing on the volume and was in charge of its production. Cover and title page are the work of de Graffenried W. List, Art Unit, NEA Publications Division. Florence O. Skuce, of the Editorial Section of the NEA Publications Division, assumed responsibility for paging and other technical aspects of production. Colleen Jamison, ASCD editorial assistant, typed and duplicated the original manuscript, prepared final copy, assisted in proof-reading, in securing permissions to quote, and in transferring corrections on this volume.

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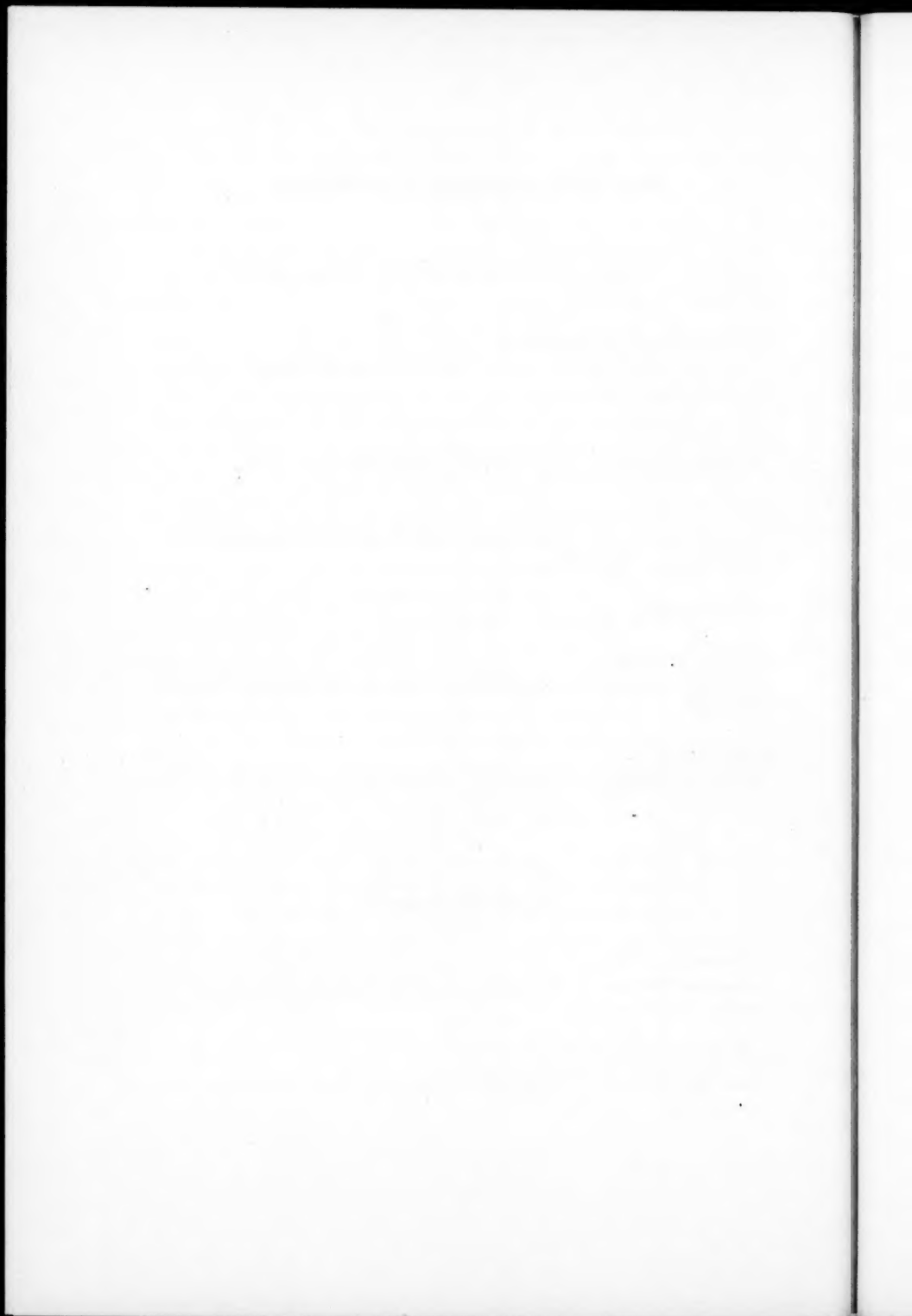
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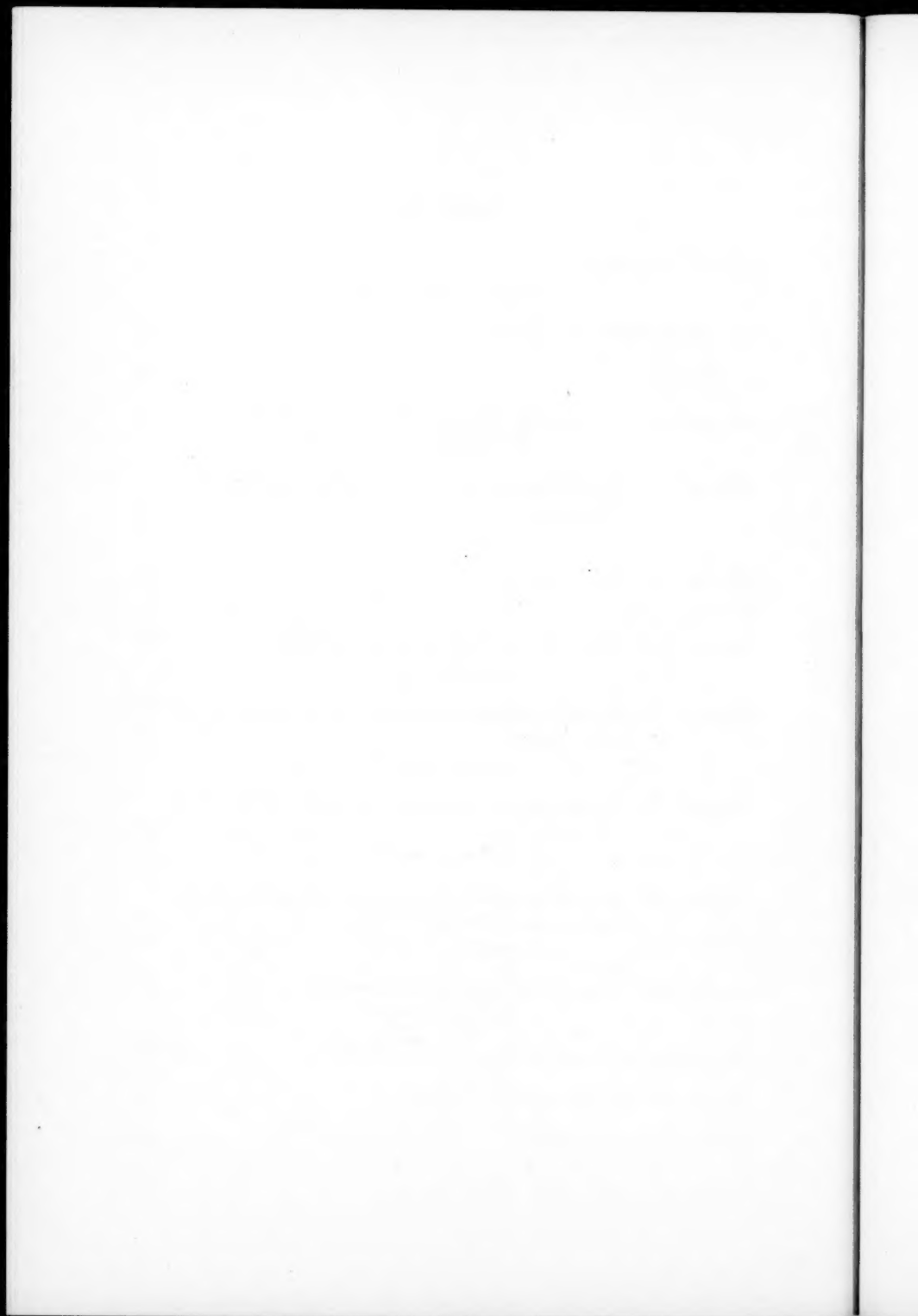
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INTRODUCTION

A Committee Examines Policies and Practices

What This Book Tries To Do

IN THE LONG continuing Great Debate over education in America, our high schools are once again going through a major reappraisal of policies and practices. In 1918 the war to make the world "safe for democracy" called forth the Cardinal Principles of secondary education that would subordinate the traditional disciplines to the demands of citizenship. Not fifteen years later, the Great Depression challenged the schools to come closer to community life, and gave impetus to the community school idea. In our present "Age of Anxiety," when reason or mind or intelligence may be surrendering to conformity and fear of the future, the schools are severely asking themselves what place critical thinking has amid such new forces as tugging ideologies, "improved" methods of propaganda, the rise of mental hygiene, and the super-organizations of people to get the things done necessary to our vastly complicated technological civilization.

One of these new great corporate entities is the public high school. It is an experiment in mass secondary education on a scale never before known to man. Since this movement has had little precedent to guide it, there have been few opportunities for it to develop effective self-appraising techniques. This book is a modest attempt to contribute to such an appraisal.

But an appraisal of this movement is not one chiefly of measuring the products of schooling, not an attempt to meet pressure group attacks, to answer critics. It is principally an attempt to look at schools in the light

of theory. One of the most hopeful signs of our times is that in many quarters there is a growing realization that sound theory is a necessary condition for securing better practice. Twentieth century science led the way in this, and within recent years such different thinkers as Einstein, Lewin and Dewey have all claimed that theorizing, in the last analysis, is one of the most practical of endeavors. Theory is not sheer armchair speculation as implied in the frequently heard derisive remark, "Oh, that's just theory!"

Theory is an indispensable guide to improved action. Witness how a new theory of management has changed the organization of industry toward gaining greater morale and how theory in physics led to the H-bomb. But for theory we would not know how to improve a school or interpret its doings when the school is either sincerely or unfairly called to account. Without theory opponents cannot think together; it is at the level of theory, not practice, that issues are joined.

The basic unity of the several essays that comprise our book lies in their being pointed more or less directly at the profoundly complex question, "What shall the American high school teach?" We do not presume to answer categorically this question posed in the title. Our purpose is a much less ambitious one. We are concerned with the identification of significant theoretical problems and issues and then proposing some alternative ways of dealing with these problems. Thus, this yearbook is in no sense to be thought of as a source for pat solutions, but rather as a guidebook for workers in secondary education as they explore, experiment and seek more satisfactory answers to the difficult and baffling problems they face.

Our book has no unified view; each author is on his own. We disagree among ourselves on many points. But we are alike in our respect for theory. We are all alike, too, in that we have had experience, not only as teachers, but as people who have departed from conventional practices in the past when the newest practices were decidedly unpopular. We are alike in that we associate ourselves with the liberal-progressive-experimentalist tradition in American education. We are alike, too, in that we profoundly admire and pay great tribute to courageous pioneers in curriculum ventures, to the long toil that entered into the rise of unsung experiments in the classroom, the great devotion to youth that prompted all kinds of new approaches in guidance of learning and new and exciting programs of general education.

But as a profession we have an obligation to be critical, even of the best and most courageous efforts. ASCD is a great organization because it has always fostered individual freedom of self-expression, working on

the principle that teaching becomes a profession as it becomes self-appraising. In this spirit this book was written.

How This Book Was Written

Our work as a committee was carried forward through regular meetings, correspondence and individual assignments. Early in our deliberations we attempted to identify those issues and problems relating to the yearbook topic that seemed to be most critical. We did this through discussions among ourselves, through conferences with workers in secondary education in the institutions and school systems with which we are affiliated and through meetings of study groups and ASCD committees which the chairman attended at the 1954 convention in Los Angeles.

After considerable discussion and several tentative outlines and memoranda prepared by members of the committee it was decided to cast the manuscript in the form in which it is now presented. Each chapter is a critical analysis of an important problem area related to the question posed in the title. We do not claim that *all* critical problem areas related to the high school curriculum are discussed in our chapters, but we do claim that those which are discussed are important ones for workers in secondary education to be concerned with.

Each writer takes responsibility for the chapter attributed to him. The charge to the authors was that they examine as critically and as honestly as they could their respective areas of concern. Committee members were asked to read and comment on initial drafts of the various chapters. Authors profited greatly from the suggestions made concerning their manuscripts by other members of the committee.

We were fortunate to secure the assistance of Lawrence Cremin and Sloan Wayland in writing chapters on topics outside the competence of the committee members. Professor Cremin's discussion of the historical perspective of the task of curriculum making and Professor Wayland's analysis of the adolescent and his social context are significant contributions to our book.

We enjoyed and profited greatly from our work together. We explored differing ideas with great relish and mutual benefit. Few of these ideas went unchallenged and we came to have great respect for each other's viewpoints, differ though we did on many points. Our hope is that in this book we have communicated to the reader some of the excitement and challenge we experienced during our two years' deliberations together.

How To Read This Book

As you read this yearbook, you will need to remember that each writer looks at educational practices and procedures in his own individual way and talks about what he sees in his own individual language. This is exactly what most of us in education seem to be recommending when we encourage each other to develop an "educational philosophy." Since there is no prescribed way of looking at the world or at education, there is no prescribed way of talking about the world or about education—to a large extent, there is no "common language." So each of us develops in a variety of ways his own language and talks as best he can, and much of what he says "makes sense" as he talks with others. There is enough similarity in our ways of talking that we can communicate reasonably well, and yet there is enough difference that we get into frequent controversy.

Observation and communication, for example, are relatively easy in a "discipline" like physics. Ways of looking at the world, at chaotic nature, are as "disciplined" as are the ways of talking about the world that physicists see. This is the main reason that we are able to distinguish between, say, a physicist and a psychologist—each looks and talks in his own "discipline."

Education, however, is a cultural activity into which knowledge from many basic disciplines flows. As a consequence we can look at and talk about education not only from our individual viewpoints as educators, but also from the viewpoint of any discipline that is concerned with human beings and the conditions under which they grow and mature—psychology, sociology, anthropology, philosophy and others. So each of us develops a language "loaded" in individual ways with a weight of knowledge from many sources. We have to do a great deal of talking with others, of sharing ideas, before we begin to "understand" each other.

As if this were not a sufficient complexity, we complicate our educational talk still more by "loading" it both emotionally and intellectually with our individual commitments to ideals and aspirations that are important to us—our "value systems." We get along well enough when we talk about the "big things" such as "education for democratic living" or "education and world progress." As our talk directs itself to specific situations, however, the "big things" for some of us unexpectedly become the "little things" for others, or the little things become very important big things—and then we get into real difficulty and become very conscious of "process."

In this yearbook, the various contributors deal with these difficulties as best they can in their own individual ways, whether they write as philosophers, historians, sociologists, or professional workers in education. The yearbook should be read, therefore, as a series of essays reflecting several ways of looking at and talking about the high school and its problems.

We would emphasize again that you will not find easy and ready answers here to some of your questions. The questions as to what the high schools are to teach have been and are being answered bit by bit by the many groups in all parts of the United States who sit in meetings and conferences and make those decisions which will determine the content and direction of high school programs. It is our hope that this book may contribute toward an understanding and a clarification of some of the very important issues that are at stake in these decisions.

As you read our essays, we invite you to bring such considerations as the following to bear in your own thinking about each of them:

1. Each writer has his individual way of looking at the high school and its place in our society.
2. Each writer's way of looking will reflect his interpretation of "the facts" that he considers relevant to his particular discussion.
3. Each writer has to a large extent his own language, his individual way of talking about what he sees.
4. Each writer has his own judgments about what is important, his own value commitments, his individual "value system."

In a very real sense, the above considerations represent the experiences of those of us who participated in the discussions conducted by the 1956 Yearbook Committee during the past two years. We learned to have an abiding respect for individuals of wide diversity engaged in the unifying activity of a common cause, a deep regard for the many who enrich education and make it a noble work.

The Yearbook Committee marks with sorrow the untimely death of Ruth Kotinsky, one of its members, in November 1955. It is a matter of genuine regret that Ruth's chapter for the yearbook had not been completed at the time of her death. The committee is deeply indebted to Ruth for the invaluable contributions she made to our work in many ways. The educational profession has lost one of its most brilliant and productive members.

The Committee for the ASCD 1956 Yearbook

The Problem of Curriculum Making: An Historical Perspective

Lawrence A. Cremin

LAWRENCE K. FRANK, in his book *Society as the Patient*, has given us a curious but provocative insight into one important function of the historian. Social action, Frank argues, is often thwarted because people are wedded to inadequate—and inaccurate—conceptions of their own tradition. To facilitate action—to free people for constructive policymaking—the historian must act as therapist. He must “release man from the coercions and distorted versions of his traditions, of his ‘past.’ . . . Man is at the mercy of these versions of his past, these selectively organized presentations of traditions and events from which he derives his cultural heritage, his image of himself, and his ideas of his future.”¹ Only when men are aware of their history are they liberated to reassess it and develop new meanings from it.

Such a conception of history may well be applied to the contemporary scene in secondary education. Curriculum makers today are generally wedded to principles and ideas which were forged in the crucible of another era. These educational approaches were developed to serve the social, economic, political and intellectual needs of an earlier America. At the time of their birth in the first twenty years of the present century, they were exciting, imaginative and seminal.

But America has changed, and so have its educational needs and institutions. Approaches which were once exciting ring a little hollow as they bear the deepening scars of anachronism. To the extent that change is never total, older ways of dealing with problems continue to

¹ Lawrence K. Frank. *Society as the Patient*. New Brunswick: Rutgers Univ. Press. p. 303.

work; but they work less effectively and less satisfactorily. As dissatisfaction grows, so does the need to reassess, to take stock and to rebuild. Perhaps this need gives us the most important clue to the reason why citizens all over the nation are today arguing educational problems with interest and enthusiasm. They are embarked—as Hollis L. Caswell first pointed out in 1952—on a great reappraisal of American public education.

Let us review for a moment this earlier period in which so many ideas of modern curriculum making were forged. The scene is that extraordinarily creative quarter-century between 1893 and 1918. At the beginning of the period stands the Report of the Committee of Ten,² a statement which summed up with impressive coherence the best of the generation which had preceded it. The end of the period is marked by the Report of the Commission on the Reorganization of Secondary Education,³ a statement which literally ushered in a whole new age. In the contrast between the two lies a key to the pedagogical revolution which brought the modern high school into existence.

The Committee of Ten Report

It was only natural that the National Educational Association in the early 1890's would turn its attention to the program of the secondary schools. Enrollments had already taken the upward turn that presaged a doubling of the high school population every ten years thereafter, and curricula, reflecting this trend, were rapidly expanding.⁴ Discussions among the educators and laymen alike revealed conflicts of purpose and confusions of aim. One could quickly enough gain agreement that the goal of the high school was "preparation for life"; but, like agreements on "motherhood" and "sin," what this meant in practice was not entirely clear. True, growing numbers of high school students were not going on to college, but whether this meant adjustments in

² U. S. Department of the Interior, Bureau of Education. *Report of the Committee on Secondary School Studies Appointed at the Meeting of the National Educational Association, July 9, 1892*. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1893. (Hereafter cited as *Committee of Ten Report*.)

³ U. S. Department of the Interior, Bureau of Education. *Cardinal Principles of Secondary Education. A Report of the Commission on the Reorganization of Secondary Education Appointed by the National Education Association*. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1918. (Hereafter cited as *Cardinal Principles*.)

⁴ As an illustration, see John Elbert Stout. *The Development of High School Curricula in the North Central States from 1860 to 1918*. Chicago: University of Chicago Press, 1921.

program was a moot issue. True, too, the colleges themselves differed so fundamentally in their conceptions of higher education that even the proper lines of college preparation were by no means clearly defined. As a rule, each high school devised its own approaches to program-making, and the ensuing diversity quickly came to pose one of the most serious educational problems of the nineties.

In an effort to attack the situation in fundamental terms, the NEA appointed a Committee—one which from the vantage point of 1956 seems entirely appropriate to the character both of the association and of the secondary school as then conceived. It included five college presidents, a college professor, three secondary school principals, and the United States Commissioner of Education. The Committee was charged with planning a series of national conferences, each devoted to one of the principal subjects of the secondary school curriculum. Representatives of both secondary and higher education would participate in the deliberation and report to the Committee, whose members would then take any action deemed appropriate. The several conferences were held in the winter of 1892-93, and the Committee's final action came in the form of a report tendered a year later.

The report itself is a model of clarity and, in spite of criticism to the contrary in the years since publication, entirely self-consistent. While the total document deserves careful analysis, its conception of the secondary school is here all-important. The secondary school is viewed as an institution designed to prepare a small segment of American youth "for the duties of life" by improving their intellectual abilities. The Committee saw absolutely no conflict between this conception and that of the high school as a college-preparatory institution, for the task of improving intellectual abilities centered squarely in the studies of the college. True, the studies were made equivalent, thus reconciling the long debate over the respective merits of languages and the classics versus the natural and social sciences. This was in and of itself an impressive step forward. But the Committee was interested primarily in improving intellectual ability by disciplining the mind; and for this purpose, all of the principal subjects might do. "They would all be taught consecutively and thoroughly, and would all be carried on in the same spirit; they would all be used for training the powers of observation, memory, expression, and reasoning; and they would all be good to that end, although differing among themselves in quality and substance."⁵

⁵ *Committee of Ten Report*, p. 52.

In sum, to teach a young person to think was to teach him to think, whether he strengthened his mind on the materials of languages, the humanities or the sciences. And so to strengthen the mind was the best possible preparation for life. Close articulation between secondary school and college in pursuit of this goal was, in the Committee's mind, all to the good. Indeed, the Committee strongly believed such articulation "advantageous alike for the schools, the colleges and the country."⁶ Although most graduates of secondary school were not destined for college, the secondary school was to remain, as it had been for centuries, a downward extension of the college. In the words of the day, it was to be truly the university of the people.

Some Changing Demands on the School, 1893-1918

The acceptance given the Committee of Ten Report was indeed overwhelming, and within a decade after its publication most American secondary schools had moved into line behind its proposals. Yet, in this very same period, political, economic and social changes of the first magnitude were beginning to occasion new demands on the school—demands destined profoundly to alter the outlook of 1893. These changes were myriad and only a few of them can be discussed here. They provide important leads in understanding the enormous pedagogical shift which occurred.

Industrialism. The Civil War had been at heart a struggle between alternative ways of life: the decentralized agricultural way of the South and the centralized industrial way of the North. Not only the victory of the North, but the character of the war itself, had contributed significantly to what Louis Hacker has called the triumph of industrial capitalism. By 1890, the die of an industrial nation had been cast, for the value added to products by manufacturing already exceeded the value of agricultural products. Thirty years later, not only had the number of persons engaged in manufacturing surpassed the number in agriculture, but the gross value of American manufactures had already far outrun that of any other nation.

The changes wrought by this technological revolution influenced every dimension of American life. With the "closing" of the frontier in the 1890's, the youth of America were looking to industry and the city for opportunities which had formerly inhered in westward migration. Urbanization continued, and by 1920 well over half the population

⁶ *Ibid.*, p. 53.

lived in the cities. Moreover, American life in general—and urban life in particular—began to display a growing complexity which demanded ever higher levels of social and economic skill. Working in a factory, negotiating public transportation, buying and selling on credit, understanding intricate political organization—all necessitated abilities on the part of the average citizen which had simply not been called for in earlier days.

Then, too, the very changes which were ushering in these new demands were simultaneously destroying the foundations of the informal social agencies which had formerly borne much of the educational load. The well-knit agrarian home, within which had been organized and concentrated the productive energies of the whole family, was giving way to the industrial home from which family members scattered daily, each to his respective place of employment. Similarly, the rural neighborhood, with its network of face-to-face and stable relationships, was giving way to urban neighborhoods characterized by impersonality and transience.⁷ All too often, within the newer milieu, the young were left to their own devices and soon became prey to the unwholesome influence of unsupervised peer groups. The streets were a powerful school, and their pedagogical fare of thrill and excitement was well-nigh irresistible.

It is little wonder that political, social and educational leaders began to look to the public schools for constructive approaches to these problems. The public schools were the public's schools, and as such they were in theory institutions obliged to serve the public's needs. To the schools gradually fell a conglomeration of educational responsibilities formerly borne by family and neighborhood and traditionally deemed appropriate to them. As early as 1896, Nicholas Murray Butler argued that the public education of a great democratic people "has other aims to fulfill than the extension of scientific knowledge and the development of literary culture. It must prepare for intelligent citizenship."⁸ And his conception of citizenship was of the broadest scope, embracing social as well as political responsibilities. Growing demands from industry and labor pressed for trade, commercial and agricultural instruction in the schools. From charitable organizations like New York City's Industrial Education Association came efforts to obtain domestic

⁷ Dewey elaborated this theme with considerable insight in "The School and Social Progress." *The School and Society*. Chicago: University of Chicago Press, 1899. See also, Ellwood P. Cubberley. *Changing Conceptions of Education*. Boston: Houghton Mifflin, 1909.

⁸ Nicholas Murray Butler. "Democracy and Education." *Proceedings and Addresses*. Washington, D. C.: the National Educational Association, 1896. p. 91.

and family training for the children of working-class parents. Slowly, but almost inevitably, these demands logically converged on a position destined to enjoy growing currency as the twentieth century wore on: that the boundaries of the school are the boundaries of life, and that no fundamental activity of life is therefore irrelevant to the classroom.⁹ In their earnest desire to fill the widening educational breach caused by the transformation of home and neighborhood, the public schools assumed tasks of a prodigious order.

Immigration. These same decades which saw the growth of American industry also witnessed a gradual but unerring shift in the character of American immigration. Before 1880, most immigrants had come from northwestern Europe, particularly England, Ireland, Germany and Scandinavia. Except for the Irish, they had generally pushed inland, settling the rich, fertile territories of the middle Atlantic, mid-western, and northwestern states. During the 1880's, however, the percentage of immigrants from southern and eastern Europe increased sharply, presaging the vast numbers from these areas who were to come between 1890 and 1920.

Apart from nationality, the "new" immigrants were substantially different from their predecessors. They tended to remain in eastern cities rather than move to western agricultural areas. Differing markedly among themselves in religion, language and custom, they seemed far more than earlier comers to settle in self-contained urban neighborhoods which perpetuated the life of the old world. As one immigrant from Roumania reminisced about his arrival in New York: ". . . my problem was to fit myself in with the people of Vaslui and Roumania, my erstwhile fellow-townsmen and my fellow-countrymen. It was not America in the large sense, but the East Side Ghetto that upset all my calculations, reversed all my values, and set my head swimming."¹⁰

To the contemporary American reviewing the history of these immigrants it is striking to note, first, how quickly the public school became the primary link between the immigrant neighborhood and the wider American culture; and, second, the apparent unawareness on the part of most public school authorities before 1914 of the magnitude of the immigrant education problem. Very often the public school in a heterogeneous urban neighborhood was the one place where the

⁹ For an illustration of the way in which the idea evolved in practice, see Randolph S. Bourne. *The Gary Schools*. Boston: Houghton Mifflin, 1916.

¹⁰ Marcus Ravage. *An American in the Making*. New York: Harper and Brothers, 1917. p. 61.

foreign-born might become conversant with American language, attitudes, beliefs and customs. And yet, as late as 1910 many a school seeking to serve the immigrant made little special provision for him and persisted in having husky laborers repeat puerile nonsense from outdated children's readers.¹¹

While widespread national consciousness of "Americanization" was really occasioned by World War I, there is evidence in the decade immediately preceding the war that educators and social workers alike were beginning really to confront the problem. By that time, the social settlement movement was in its second decade, and the heart of the settlement idea—namely, the effort to bring about social improvement through family and community education—was deemed increasingly suitable for the school. This meant that the school would be ultimately concerned with the total lives of individuals, rather than restrictively or even primarily with things intellectual. Indeed, it meant that each school would eventually itself become a social settlement dedicated to the improvement of community life in all its manifold dimensions.¹²

While there was little agreement on the meaning of Americanization,¹³ essays in educational journals and elsewhere revealed growing concern with school-community relations, with the necessity of inducting foreign-born adults and children alike into worthy and responsible community membership, and with the need for fostering a sense of community among heterogeneous immigrant groups. Once, again, this could mean nothing less than the school's taking on educational functions classically assigned to home and neighborhood. Immigrant

¹¹ The survey of the Cleveland public schools in 1916 found immigrant men 25 to 30 years of age busily copying, "I am a yellow bird. I can sing. I can fly. I can sing to you." See Herbert Adolphus Miller. *The School and the Immigrant*. Cleveland: The Cleveland Foundation, 1916. p. 91 ff.; and Frank V. Thompson. *Schooling of the Immigrant*. New York: Harper and Brothers, 1920. The problem was by no means confined to adult evening classes. By 1911, in the public schools of 37 large American cities, 57.5 percent of the children were of foreign-born parentage. See *The Children of the Immigrants in the Schools*. Abstract of the Immigration Commission Report, Washington, D. C.: Superintendent of Documents, Government Printing Office, 1911.

¹² The data for these propositions are taken from a Ph.D. dissertation in progress at Teachers College, Columbia University, by Morris I. Berger. "The Immigrant, the Social Settlement, and the Public School." See also, Alan M. Thomas, Jr. "American Education and the Immigrant." *Teachers College Record* 55: 253-67; February 1954.

¹³ See Isaac B. Berkson. *Theories of Americanization*. New York: Bureau of Publications, Teachers College, Columbia University, 1920. Contributions to Education, No. 109.

parents, unable by the very nature of their situation to inculcate in their children *American* values and habits, slowly—sometimes reluctantly—relinquished parental functions to the school in their effort to close no avenue of social advancement. When the divided allegiances of World War I raised to the forefront the question of immigrant loyalty, the pressure on the school to Americanize with renewed vigor and effectiveness achieved nationwide proportions.¹⁴

Progressivism. Related to the economic and social transformations of the period were spirited demands for political reform. Most such efforts represented attempts to realize in the new industrial context Lincoln's great principle of government by, of and for the people. The exploitation of resources and labor for personal gain, the increasingly unequal distribution of wealth, the untold personal misery occasioned by the new industrialism, the deplorable corruption in politics, all came in for sharp criticism by crusading humanitarians and for ever so gradual amelioration through reform legislation.

In social thought, this was the era of the muckrakers, and their shocking exposés; and of Jane Addams and Lillian Wald, Jacob Riis and Judge Ben Lindsey. Politically, progressivism's banner was carried by William Jennings Bryan, Robert LaFollette, Theodore Roosevelt and Woodrow Wilson. The "square deal" and the "new freedom" continued into the twentieth century the spirit of protest that had flowed from the Jacksonians through the Populists. In the context of big industrialism, humanitarianism remained an intensifying theme.

In educational thought, the new progressivism manifested itself in the cry that universal schooling was not enough, that a certain *kind* of schooling was foundational to democracy. As early as 1891, when he delivered his lectures on pedagogy at a teachers retreat of the New York Chautauqua, Francis W. Parker treated at length the problem of "democracy and education," arguing that every school should be an "embryonic democracy" wherein children's rights would be protected, children's freedoms preserved, and children's natural gifts built upon. In the distinctively American idea of a common public school embracing the children of all classes, nationalities, and sects, Parker saw the essential foundation of a democratic education.¹⁵

¹⁴ The pressure was a prime factor in the passage of a law in Oregon making attendance of children between the ages of eight and sixteen at a public school mandatory. The law was ruled unconstitutional in 1925 by the United States Supreme Court in *Pierce v. Society of Sisters*, 268 U. S. 510.

¹⁵ Francis W. Parker. *Talks on Pedagogics*. New York: Kellogg, 1894. Chapter 16.

While a growing number of educators gave attention to such themes, especially after the turn of the century, no one gave the problem more searching or more penetrating treatment than John Dewey. In a number of shorter writings, but particularly in *Democracy and Education* (1916), Dewey carefully analyzed the fundamental conditions of democracy and then sought educational arrangements which would nurture and support these conditions. "Since education is a social process," he argued, "and there are many kinds of societies, a criterion for educational criticism and construction implies a *particular* social ideal." Based on this, Dewey continued:

A society which makes provision for participation in its good of all its members on equal terms and which secures flexible readjustment of all its institutions through interaction of the different forms of associated life is in so far democratic. Such a society must have a type of education which gives individuals a personal interest in social relationships and control, and the habits of mind which secure social changes without introducing disorder.¹⁶

Given these initial propositions, Dewey proceeded to explore what educational aims, what conceptions of interest, thinking, knowledge and vocation, and what organization of studies could best contribute to the support and advancement of democracy. His work was a classic insofar as it cast the problem in fundamental terms and provided an internally consistent set of conceptual tools for dealing with it. And inasmuch as the problem was itself inherent in the century-old effort to build a public school that would undergird American values and institutions, the influence of Dewey's position was inestimable.

Some Changing Conceptions of the School, 1893-1918

An expanding industrialism, a changing immigration and a vigorous democracy exerted fundamental new demands on American schools between 1893 and 1918. Equally important in the evolving pedagogy of the era, however, were changes in the conception of the school itself—of its relationship to society and to the individuals who attended it. Once again, only a few among many possible themes can here be discussed in the effort to understand the emergence of a fundamentally new educational outlook.

Dynamic Sociology. Forty-five years after Comte first coined the term, "sociology," and thereby set the new social science on the course

¹⁶ John Dewey. *Democracy and Education*. New York: The Macmillan Company, 1916. p. 115.

of its phenomenal development, Lester Frank Ward published the volume that marked the beginning of American sociology. Ward's book, entitled *Dynamic Sociology*, provided systematic "scientific" treatment of a theme which had been central in American thought since the founding of the Republic: namely, that man, through his rational powers, could master the laws of nature and thereby achieve for himself a life of goodness and plenty on this earth. Ralph Gabriel has called Ward "the St. Augustine of the American cult of science." More than any other individual, Gabriel argues, "Ward formulated the basic pattern of the American concept of the planned society."¹⁷

Ward's thesis was an engaging one. Nature, he maintained, was essentially wasteful. Man, possessed of the power to comprehend nature's laws, could eliminate this waste, and could thereby seek to create a new order consequent upon worthy human purposes.

The office of mind is to direct society into unobstructed channels, to enable these social forces to continue in free play, to prevent them from being neutralized by collision with obstacles in their path. In a word, mind has for its function in civilization to preserve the dynamic and prevent the static condition of the social forces. . . . Just as it is not psychological force which propels the water wheel on the piston . . . but merely the forces of gravity and gaseous expansion compelled by mechanical power under the guidance of intelligence to operate for the benefit of man, so it is not mind which moves the civilization of the world, but only the great and never-ceasing forces of society, which but for the guidance of mind would rush blindly on into a thousand entanglements with rival forces, and assume that position of static equilibrium which represents social stagnation.¹⁸

The thesis very obviously bestowed a tremendously important role on education. For Ward, education was the basis of all progress in the extent to which it equipped leaders to lead and equipped average men to understand and support their leadership. Therefore, to supply universal education was a primary function of any beneficent state administered in the interest of its citizens.¹⁹

While Ward himself never wrote extensively on education, his point of view profoundly influenced Albion Small, who in 1892 became head of the first American department of sociology at the University of Chicago. Small, who quickly became identified in professional

¹⁷ Ralph Henry Gabriel. *The Course of American Democratic Thought*. New York: Ronald Press, Second Edition, 1956. p. 204.

¹⁸ Lester F. Ward. *Dynamic Sociology*. New York: Appleton-Century-Crofts, Inc. 1883. p. 698-99.

¹⁹ Some of Lester F. Ward's educational ideas are in *Glimpses of the Cosmos*. New York: G. P. Putnam's Sons, 1913-18.

circles as an educational sociologist, was unalterably committed to an orientation which saw the school not only as closely related to community life but also as capable of substantially modifying the course of community life. Through the work of Small and of a growing number of his students who went out to fill top posts in American education, the ideas of dynamic sociology were firmly injected into pedagogical thought; and the conceptual basis was laid for a school which might exert profoundly important influence on the future of American society.

The Natural Child. If a conception of the school-society relationship is central in any pedagogical orientation, equally important is a conception of the child and his relation to pedagogical processes. The foundations of the view that gained prominence after 1890 dated all the way back to the seventeenth century Moravian clergyman, Johann Amos Comenius. Comenius had argued in *The Great Didactic* and other writings that certain natural laws govern the development of human beings, that these can be scientifically determined, and that knowledge of these laws is the only sound basis for pedagogical theory and practice. The child, observing thus the laws of nature, is good rather than evil, conceived in hope rather than in sin.

The long succession of writings through which similar ideas found their way into twentieth century thought is the content of any standard work in educational history. Suffice it here to say that through the works of Jean Jacques Rousseau and Johann Heinrich Pestalozzi they became generally familiar to nineteenth century educational leaders. While Horace Mann and others had advanced them well before the Civil War,²⁰ it was largely through the work of Edward Sheldon and Francis W. Parker after 1870 that they really began to achieve prominence. By 1891, Parker could proclaim with optimistic gusto: "The spontaneous tendencies of the child are the records of unborn divinity; we are here, my fellow teachers . . . to understand these tendencies and continue them in all these directions, following nature."²¹ His words instilled a virtually messianic ardor in the teachers who heard them.

The man who provided such ideas with truly "scientific" underpinnings was G. Stanley Hall. Having studied experimental psychology in Germany, Hall established one of the first psychological laboratories in the United States at Johns Hopkins University in 1882. He soon began to concentrate his energies on the unexplored field of child

²⁰ Will S. Monroe. *History of the Pestalozzian Movement in the United States*. Syracuse, New York: Bardeen, 1907.

²¹ Parker, *op. cit.*, p. 23-24.

development, and when he assumed the presidency of Clark University in 1889, that institution quickly became a leading center for research and writing in this area.

Hall's first major contribution to receive widespread notice was *The Contents of Children's Minds on Entering School* (1891),²² a monograph with an implied plea for tailoring the program of the introductory grades more effectively to what children actually knew on entering them. In advancing his material, Hall was proposing something far more radical than the thesis that subject matter might be taught more efficiently if the results of child study were used. Rather, he was arguing that the content of the curriculum itself could be determined from the data of child development.

That this is so is evident from his essay, "The Ideal School as Based on Child Study," published ten years later in *The Forum*.²³ One can assume that it reached a highly literate and influential audience, both lay and professional. Here his key concept concerned the difference between the *scholiocentric* and the *pedocentric* school. The former, in Hall's view the dominant ideal of Western education throughout its history, fitted the child to the school; the latter, in Hall's view the only defensible ideal for a republic, fitted the school to the child. "The guardians of the young," he argued, "should strive first of all to keep out of nature's way, and to prevent harm, and should merit the proud title of defenders of the happiness and rights of children. They should feel profoundly that childhood, as it comes fresh from the hand of God, is not corrupt, but illustrates the survival of the most consummate thing in the world; they should be convinced that there is nothing else so worthy of love, reverence, and service as the body and soul of the growing child."²⁴ Thus did Hall build upon the *laissez-faire* pedagogy first advanced in *Emile*, the idea of a child-centered school whose curriculum would be principally determined by data on the nature, growth and development of children.

Hall's position, particularly when later bolstered by his monumental *Adolescence*, paved the way for a fundamental shift in the meaning of equal opportunity at the secondary level. Formerly, when the content and purpose of the secondary school had been fairly well defined, equal opportunity meant the right of all who might profit from secondary education as so defined to enjoy its benefits. Now, the "given" of

²² G. Stanley Hall. "The Contents of Children's Minds on Entering School." *Pedagogical Seminary* 1: 139-73; 1891.

²³ G. Stanley Hall. "The Ideal School as Based on Child Study." *The Forum* 30: 24-29; 1901-02.

²⁴ *Ibid.*, p. 24-25.

the equation was no longer the school with its content and purposes, but the children with their backgrounds and needs. Equal opportunity now meant simply the right of all who came to be offered something of value, and it was the school's obligation to offer it. The magnitude of this shift cannot be overestimated; it was truly Copernican in character. And tied as it was to the fortunes of the child-study movement, it gained vast popularity during the first decade of the twentieth century.²⁵

Activist Psychology. Another intellectual development of the first importance lay in the beginnings of educational psychology. Spearheaded at Chicago by John Dewey's early papers before the National Herbart Society and at Teachers College, Columbia University, by Edward L. Thorndike's numerous research papers following upon *Animal Intelligence* (1898), the movement to found teaching on a new science of learning made rapid headway.

A number of fundamental ideas undergirded the new psychology. Those associated with Thorndike's connectionism conceived of an original nature in each individual which would be changed as selections were made from among possible responses and "stamped in" according to the laws of readiness, exercise, and effect. The psychology was *activist* insofar as it sought data in observable behavior rather than in some "stream of consciousness" posited by the experimenter and tapped by way of introspection. Its dynamic lay in the operation of rewards and punishments. ". . . practice without zeal," argued Thorndike in a now-classic statement, "—with equal comfort at success and failure—does *not* make perfect, and the nervous system grows *away* from the modes in which it is *exercised with resulting discomfort*."²⁶

Insofar as connectionism also argued that the original natures of individual men and women are not exact duplicates, and that different individuals learn at different rates, it made the problem of individual differences a central one for pedagogy.²⁷ Finally, insofar as connectionist psychology tended to be molecular rather than molar, it denied the possibility of transfer of training except in the case of "identical

²⁵ Cubberley as early as 1909 was complaining about the "monopoly" of child study in the field of education. *Op. cit.*, p. 54-55.

²⁶ Edward L. Thorndike. *The Psychology of Learning*. New York: Bureau of Publications, Teachers College, Columbia University, 1913. p. 22.

²⁷ See Edward L. Thorndike. *Mental Work and Fatigue and Individual Differences and Their Causes*. New York: Bureau of Publications, Teachers College, Columbia University, 1914. Part II, *passim*.

elements." It therefore refuted the theory of mental discipline. While Thorndike himself was not willing to move from complete generalism to complete specialism on the basis of his researches, some of his readers were; and as early as 1913, he criticized certain "careless thinkers" for rushing "from the belief in totally general training to the belief that training is totally specialized."²⁸

While Dewey's functionalism was, like connectionism, an activist psychology, it made far more of the purposeful act as the basis of education. In the doctrine of interest lay the beginning of the modern movement to make motivation central in learning theory;²⁹ and while it was perhaps not until Woodworth published *Dynamic Psychology* (1918) that the idea of drive achieved genuine currency, the discussions of interest at the turn of the century were enormously influential. Indeed, in criticizing the Herbartian doctrine of interest as primarily the end point of education, Dewey, probably to a considerable degree, paved the way for the psychology of motivation.

That connectionism and functionalism could be synthesized into a single pedagogical outlook is well illustrated in the publication of William Heard Kilpatrick's essay, *The Project Method*, in 1918.³⁰ Using the concept of wholehearted, purposeful activity as his unifying theme, Kilpatrick was able to embrace in the project idea major insights from both psychologies. His article achieved wide circulation, and in a short while "the project" had captured the attention of the profession. For many in the field who had read neither Thorndike nor Dewey, the article became a highly effective vehicle for translating the new psychology into educational terms, and for developing its meaning in practice.

The New Pedagogy and the Cardinal Principles

"The great men of a great epoch," wrote Charles Summer in 1906, "are those who have understood new currents in the mores." A study of some of the outstanding writings in education—particularly secondary education—between 1893 and 1918 reveals a widespread and

²⁸ Thorndike. *The Psychology of Learning*. p. 365.

²⁹ John Dewey. "Interest as Related to Will." *Second Supplement to the Herbart Year Book for 1895*. Bloomington, Illinois: National Herbart Society, 1896. p. 209-55.

³⁰ William Heard Kilpatrick. *The Project Method*. New York: Bureau of Publications, Teachers College, Columbia University, 1918.

growing sensitivity to the forces described above.³¹ Indeed, there seems ample evidence that by the time of World War I, awareness of the new currents and of their educational concomitants was fairly common among educational leaders. Such awareness was in evidence at the major graduate centers offering doctoral work in education; it was present too in the growing list of textbooks on secondary education which appeared as courses and students in this area multiplied.³²

The ideas discussed above were both familiar and gaining in acceptance when the National Education Association in 1913 appointed another committee destined to produce another landmark in American pedagogy. This was the Commission on the Reorganization of Secondary Education.

The Commission was originally conceived as a central body to embrace, coordinate and review the work of a number of previously organized groups already dealing with various facets of the secondary program. Among these were a dozen National Education Association committees appointed in 1912 and 1913, each one for the purpose of studying the reorganization of a single high school subject. Also included was the NEA's Committee on the Articulation of High School and College, whose recommendations in 1911 had initially occasioned the appointment of the above-mentioned groups. The chairmen of all these committees, together with ten "members at large," were designated a "reviewing committee" of the Commission, and given the task of preparing a final report.

When the final appointments to this "reviewing committee" had been made, the contrast with the Committee of Ten was striking. While the 1893 group had been dominated by people from higher education, the new committee was far more representative of secondary school personnel and college and university professors of education. Of the twenty-seven members on the final roster, ten were directly associated with the public schools, nine were from schools

³¹ Extensive evidence in support of this proposition may be gleaned from the *Addresses and Proceedings* of the NEA during these years, particularly the Department of Secondary Education. Publications of the United States Bureau of Education will serve a similar function.

³² Excellent examples are John Franklin Brown. *The American High School*. New York: The Macmillan Company, 1909; Charles De Garmo. *Principles of Secondary Education*. New York: The Macmillan Company, 1907; Alexander Inglis. *Principles of Secondary Education*. Boston: Houghton Mifflin, 1918; Paul Monroe, editor. *Principles of Secondary Education*. New York: The Macmillan Company, 1914; and David Snedden. *Problems of Secondary Education*. Boston: Houghton Mifflin, 1917.

or departments of education, four were from higher education, three were from the United States Bureau of Education, and one was from the YMCA. One might naturally expect such a group to be far more concerned with the high school as an integral institution with its own distinctive aims than simply as a handmaiden of the college; and such was indeed the case.³³

The Commission's report, entitled *Cardinal Principles of Secondary Education*, was five years in the making and, like the Committee of Ten Report before it, is worthy of careful and critical study. The conception of the secondary school therein clearly reflects the several new currents of educational thought which were increasingly gaining adherence. The purpose of democratic education is to "develop in each individual the knowledge, interests, ideals, habits, and powers whereby he will find his place and use that place to shape both himself and society toward ever nobler ends." To give this proposition meaning, it is necessary to analyze the life activities of the average individual in a democratic society. The results of such analysis yield seven primary educational objectives: health, command of fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure, and ethical character. These being deemed the central aims of education at all levels—elementary, secondary, and higher—the specific task of the secondary school is to seek to realize them in the lives of *all* children approximately 12 to 18 years of age. How can the secondary school do this? By so reorganizing the offering in each of the subject areas and by so arranging the activities of the school that growth on the part of individual students in health, command of fundamental processes, and so forth will be facilitated.

The report is clear about a number of other things. It explicitly assumes that the vast social changes inherent in industrialism and the findings of the new psychology must be taken into account. It assumes, too, that marked changes in the secondary school population "can no longer be safely ignored." Granting the ethnic diversity of the American people, it argues that "the school is the one agency that may be controlled definitely and consciously by our democracy for the purpose of unifying its people." Further, and of the greatest importance, the report maintains that secondary education should be for all, that it should be closely articulated with elementary school-

³³ The differences in orientation between the two groups are insightfully analyzed in a report of the Committee on the Teaching Profession of the American Academy of Arts and Sciences entitled, "On the Conflict between the 'Liberal Arts' and the 'Schools of Education.'" *The ACLS Newsletter* 5: 17-38.

ing as part of a continuous educational experience in the life of every child, that entry into the secondary school should be governed by age rather than by academic accomplishment, and that the colleges should modify their entrance requirements to enable graduates of such secondary schools freely to attend:

. . . the secondary school should admit all pupils who would derive greater benefit from the secondary than from the elementary school. With the demand of democratic society for extended liberal and vocational education for an ever-increasing number of persons, the higher institutions of learning, taken as a whole, are under a similar obligation with reference to those whose needs are no longer met by the secondary school and are disposed to continue their education.³⁴

Such is the report's radical departure from tradition. It clearly espouses the new conception of equal educational opportunity inherent in G. Stanley Hall's "pedocentric" school.

Finally, the report comes out squarely in favor of the comprehensive high school, embracing all curricula in one unified organization, as "the standard type of secondary school in the United States." A school so organized is seen as the only agency which can extend upward the essential meaning of the common public school: the idea of unity with diversity and diversity within unity. In offering the opportunity to specialize within the context of a single school, the comprehensive school becomes "the prototype of a democracy in which various groups must have a degree of self-consciousness as groups and yet be federated into a larger whole through the recognition of common interests and ideals."³⁵ Life in such a school, the report contends, "is a natural and valuable preparation for life in a democracy."

In the contrast of these ideas with those of the Committee of Ten most assuredly lies a pedagogical revolution. The heart of this revolution was a shift in the conception of the school, of what could be and should be its primary goals and responsibilities. From an institution conceived for the few, the high school became an institution conceived for all. From an adjunct to the college, the high school became the pivotal point in the public school system, one which carried forward objectives yet unfinished by the elementary school and opened new vistas leading on to the college. And from an institution restrictively concerned with the intellectual, the high school became an agency with no less a goal than the progressive satisfaction of every individ-

³⁴ *Cardinal Principles*, p. 20.

³⁵ *Ibid.*, p. 26.

ual and social need. Such was the grand design of this Commission, one which, in weaving a multitude of new and pressing demands into an integral view of the school, was able to face squarely toward the future and thereby to usher in a whole new age in American secondary education.

The Current Reappraisal

"The school," wrote Dewey in 1896, "is fundamentally an institution erected by society to do a certain specific work." Few generalizations are more patently supported by the study of American educational history. From the very earliest period in which the American people sensed their uniqueness, the principal theme of their educational history has been the search for a school which in its scope, program, organization and administration might best support and advance their most cherished ideals.³⁶ This was true of the period in which the great state systems of public education were founded; and it has been equally true of the period since that time. The theme was undoubtedly the *leitmotif* of the years between 1893 and 1918.

Stated simply, the contribution of the Commission on the Reorganization of Secondary Education was to redefine the role of the secondary school. To the extent that in so doing the Commission was able to grasp certain new and highly significant social and intellectual forces in American life, its redefinition became a lever for needed change and reform. The effects of the Cardinal Principles have been legion. Indeed, it does not seem amiss to argue that most of the important and influential movements in the field since 1918—for instance, the work of the American Youth Commission during the 1930's or the Life Adjustment Commission in more recent years—have really been footnotes to the classic itself.³⁷ While cogent criticisms over the years have called for refinements, further denotations and extensions of the Cardinal Principles, the statement has for close to four decades provided the orientation and terminologies for the development of secondary education.

During the current period of educational reappraisal, these facts are of the highest import.³⁸ There seems every indication that the secondary school, as the pivotal point in the public school system, will be a

³⁶ See Educational Policies Commission. *Public Education and the Future of America*. Washington, D. C.: National Education Association, 1955.

³⁷ The same might be said of such widely read reports as *Issues of Secondary Education* (1936) and *Education for All American Youth*, 1944.

³⁸ For a treatment of the reappraisal, see my discussion, "Public Education and the Future of America." *NEA Journal* 44: 9-10; January 1955.

focus for discussions by citizens and educators for some years to come. As in the period between 1893 and 1918, new social and intellectual currents are calling for new educational outlooks. The great immigrations are over, and recent publications like *The Lonely Crowd* by David Riesman and *Protestant-Catholic-Jew* by Will Herberg are dramatically reformulating the problem of what it means to be an American. Terms like "unity" and "diversity" are taking on new referents as the percentage of foreign-born declines to insignificance and schools deal increasingly with third- and fourth-generation American children.³⁹ Then, too, the problem of what it means to be an American increasingly has an "outward" as well as an "inward" dimension. The United States has assumed a leading position in a world whose centers of power are rapidly shifting. The need for a carefully designed program of international understanding has been voiced so frequently as to be virtually a truism. Yet, as is so often the case, pathetically little has been done. Foreign languages, for example, are today essential for growing numbers of businessmen, government workers, and professionals; nevertheless, they are still seen by many school people as "aristocratic" holdovers from the old Latin Grammar School, a stereotype which, paradoxically enough, has been supported by a notion of Americanization which views foreign tongues as "immigrant vestiges." Teaching about other peoples is often rich in platitude and scant in substance, a fact which is unfortunately as true of our teacher-preparing institutions as it is of our secondary schools. Here is a realm which virtually cries out for proper attention in the American high school.

Our industrial economy is entering upon an era marked by the harnessing of vast new sources of energy and the rapid extension of automatic control in production. Want-ads in newspapers across the nation daily announce the desperate need for highly skilled technicians, well-trained engineers, and competently educated scientists and mathematicians. What these sharpening demands, compounded as they are by current manpower shortages, mean for programs of vocational, technical and academic education in the secondary school is only beginning to be explored.⁴⁰ Certainly, hardened distinctions between college-preparatory and noncollege-preparatory programs,

³⁹ See my discussion, "The Public School and the Public Philosophy," *Teachers College Record*, March 1956. p. 354-59.

⁴⁰ See the forthcoming publication of The Educational Policies Commission entitled "Manpower and Education."

or between academic and vocational courses, are rapidly becoming anachronistic.

In addition to creating an unprecedented demand for skilled personnel, technology has made possible the creation of powerful new educational media, and new social agencies have arisen to administer these. Future historians may well record the development of radio, television and cinema during the past forty years as an educational revolution whose ultimate impact will rival the original invention of the school. Yet, too few of our secondary school teachers and administrators see these media as anything but ancillary—or even distracting—influences in the education of young people. Then, too, other institutions, operated with public funds by new professionals like the social worker, the criminologist or the recreation leader, are assuming functions formerly assigned to the school. Yet, many educational theorists continue to conceive of the school as equally if not exclusively responsible for all of these tasks. Once again, fundamental rethinking is necessary.

The thesis here is that sweeping changes such as these—and those recited above are merely exemplary—may well call for a new view of secondary education as different from the Cardinal Principles as were the Cardinal Principles from the ideas of the Committee of Ten. To be sure, it is difficult to determine at this point just what the character of the new conception will be. Researches in psychology are giving new meaning to concepts like instinct, learning, personality, and transfer of training; while the rapid progress of anthropology has profoundly altered classical theories of human development. One effort of current discussion, however, has become increasingly apparent: this is to denote and define somewhat more sharply than was earlier necessary the most *distinctive* contributions of the school in meeting the sum total of human needs. This is something the Commission on the Reorganization of Secondary Education left hazy. The Commission, for example, told educators that the health of the citizenry was important, and that the school ought to contribute to the improvement of health. But the Commission never fully told educators how the school's contributions would differ from those of hospitals, private physicians, or public health officers. Comparable criticisms could be raised concerning the Commission's discussion of worthy home-membership, vocation, citizenship, worthy use of leisure, and ethical character. The division of the educational task between the school and other institutions was not seen as a central problem; indeed, in 1918 it was not a central problem. Today it is, but our discussions of it have

remained unclear and ill-defined. We talk about dealing with "whole children," not realizing, perhaps, that churches, homes, hospitals, and social work agencies also deal with "whole children." Yet certainly each of these institutions deals with different aspects of the "whole child" in different ways.

Much of the recent polemic literature in the field has addressed itself to this point. There is no better example than the running controversy between Arthur Bestor (*The Restoration of Learning*) and his critics. When one cuts through the frosting of this debate to the really fundamental question, it seems always to be: are there any things which *must* be done by the school, because if the school doesn't do them, they won't get done? Few would argue that the school should *confine* or *limit* itself to its most distinctive functions. Most, however, would urge that these functions should at least be emphasized. Certainly, in any discussion of what the high schools ought to teach, the issue cannot be avoided.

The Social Context and the Adolescent

Sloan R. Wayland

THE MILLIONS of adolescents who make up the secondary school population are only approximately 5 percent of our total population. However, our society's interest in this age group is justifiably great. The staggering increase in the number of adolescents which we are already beginning to note demands the most serious attention. The greatest imagination and ingenuity will be required to help the coming generations of adolescents to move into their adult roles with an adequate orientation to our democratic way of life.

The development of the curriculum for any secondary school is the result of a unique combination of circumstances. One important set of factors involved in curriculum improvement which will be considered here includes such elements as the prevailing ideas about the social and psychological development of youth held by educators and others in the community, the response at the community level to the general social environment, and the subculture of youth with its special patterns of social interaction and values. Discussion of factors of such complexity in this setting must be selective and can be treated in only a limited fashion. The discussion is selective in another important way. The approach used is essentially sociological and thus does not include the consideration of a large number of very important questions which would be raised if another approach were used.

In the discussion which follows, attention is first given to an interpretation of adolescence as a cultural as well as a physiological phenomenon. The social mechanisms which have been developed in recognition of the different patterns of maturation of adolescents

in the economic, political, educational, recreational, and sexual areas of experience are considered. Following this introduction, selected aspects of the social context are analyzed. As a prelude to this analysis and in order that the utility of the analysis of the social context may be clearer, the relationships between the social context and policy making in education are examined.

In discussing the social context within which the adolescent and his school function, attention is focused on only two major developments in the general society. The two developments selected are considered for their own importance and as illustrations of a method which may be used in looking at other important factors in the social environment.

In addition to this exploration of the general social context, attention is also given to certain aspects of the culture in which the adolescent is immediately involved. At this point, selection is made again from among the number of areas of experience of the adolescent. The focus of attention here is on the subculture of the school although the approach used may also be applied to other phases of the adolescent's life.

Two threads run through the analysis outlined above. On one hand, consideration is given to those general patterns which characterize the society as a whole and which in some measure influence all secondary schools. On the other hand, the distinctive qualities of each community and each school are recognized. Both emphases must be kept in mind in interpreting the discussion which follows.

Adolescence: A Culture-Bound Process of Maturing

Adolescence is both a universal experience and a pattern of distinctive experiences having special meanings in different cultures. It is a universal experience in that all adults have lived through those years in the life cycle which in our culture we call adolescence. In another sense, adolescence is a term in our culture with a very special set of associated meanings which are not shared in Samoa, India or Yucatan. While the differences between cultures are of importance, the differences within our own culture are also of special significance to the educational profession.

Adolescence must be viewed then as a cultural phenomenon whose meaning is unique to the special culture in which it occurs. As a part of the life cycle, certain physiological changes take place which are

of a continuous character with those which have been occurring before and which will continue to occur. Such changes as increases in height, weight and physical coordination bring with them corollary adjustments in self-concepts. These psycho-social changes are meaningful in terms of the particular culture or subculture. One subgroup in a community may place a high value on verbal ability and intellectual achievement while another may value social graces or athletic prowess. In one situation a girl may not want to be considered "a brain" since this will restrict her peer association, while another girl of similar ability will find support in her peer group relations for high achievement in academic work. As was pointed out above, in a sense these adjustments are part of the continuous process of change which begins at birth.

In addition to normal physical development, special developments of a distinctive character, chiefly related to puberty, have a number of important consequences of a cultural and psychological as well as physical character. In some cultures, this physiological change permitting reproduction is a symbol of maturation and is the time for induction into adulthood through prescribed rituals.

In our culture, passage into adulthood is not achieved in a single step. In different areas of experience there are distinctive steps which adolescents take as they mature. The ages at which these steps occur range from 12 to 21. This wide variation constitutes one of the major problems for the adjustment of the maturing young people. In the following section, the variations by age for different areas of experience such as education, work, civic responsibility and recreation are considered.

Education

Education is the only kind of activity in which all persons in the United States are required by the state to participate. There are many activities in which a high proportion of the people take part, such as voting, getting married, working and attending religious services. Many kinds of activities are specifically forbidden such as homicide, abandoning one's wife, and voting twice. This major exception to free and voluntary association which characterizes most of our experiences is in part an indication of our belief in universal education and our rejection of an elite system. In other areas of our life we are committed to the concept of equal opportunity without specifying the particular course of action which must be taken. For instance, we say that all citizens meeting age, residence and citizenship qualifica-

tions have an equal right to vote, but we do not require everyone who is eligible to vote.

Flexibility has been insured to a degree in spite of the universal and compulsory feature of education, through a pattern of local control.

1. Each state has been given the responsibility for education within the framework of the federal Constitution. The individual state is in turn free to make its own regulations with reference to the establishment and operation of school systems including age for compulsory attendance.

2. The states in turn have given local school districts the major responsibility for the establishment and operation of schools. Although some states such as North Carolina and Delaware have a relatively high degree of state management of schools, in most states schools are largely controlled by the local school district.

While there are certain elements which tend to give schools rather standard character—state certification requirements for teachers, national professional organizations and publications, and the mobility of teachers—the essential local control of education has prevented the institution of education from falling under the direct control of the government or any segment of the society. Thus the pluralistic character of the free American society is manifested in the area of education through the operation of 48 state systems and thousands of school districts. This pluralism is further guaranteed by the freedom of any group to establish schools of its own as long as certain minimum state requirements are met and as long as the federal Constitution is not contravened.

Though enrollment in school is compulsory, the legal ages of entrance and withdrawal vary from state to state. The minimum age for leaving school ranges from 16 to 18 with exceptions being allowed in terms of certain grade level attainments or when special permission is granted. In 1950 only about one-sixth of all children 5 and 6 years old were enrolled in kindergarten. One in four of the urban white children, and less than one in seventy rural farm nonwhite children were so enrolled.

On the other hand, one in ten young people 15 years old was not enrolled, while one in four 16 year olds, one in three 17 year olds, and three out of five 18 year olds were not enrolled in schools. Here again, there is considerable variation among subgroups in our society. For urban white males one out of four 17 year olds was not enrolled

in 1950.¹ For rural farm nonwhite males about three out of five were not enrolled. In 1910 one in three of all 17 year olds in the United States was enrolled in school, while in 1920 three out of eight were enrolled. For the ages of 7 through 14 about 95 percent of all persons were enrolled. Below and above these ages the percent enrolled drops rather sharply.²

As any teacher knows, enrollment is not a very good indication of the level of participation in the school system. Even with the most flexible system of age promotion, a significant number of our students do not move through the system on schedule. The modal age for seniors in high school is 17. Out of the two-thirds of all 17 year olds who were enrolled in 1950, only one out of two was a senior in high school; less than one in three was a junior and one in sixteen was still in elementary school.

As has been indicated, the school is the one institution in our society in which everyone is expected to participate. We have seen, however, that even at the period of highest participation, about 5 percent are not enrolled, and a portion of those who are enrolled are not involved sufficiently to move along in the pattern which is assumed—one grade a year. We have seen that there are significant variations in the 5- and 6-year groups but the greatest variation occurs in the 17-year-and-over age groups and major variations exist for the 16-year age group.

What has intervened to prevent 100 percent coverage? Several personal, educational and general cultural factors are involved:

1. The physically handicapped, the mentally disturbed and the mentally retarded constitute a group whose number cannot be determined accurately. In some areas many persons in these categories are being served while in others none are being reached fully.

2. Some families are transients and do not choose to enroll their children for short periods.

3. Family values are such that a number of children are taken out of school as soon as legally possible. In addition, family needs for financial aid from children are such in some instances that children who would be in school otherwise are withdrawn.

4. Certain cultural groups view education beyond the point of acquisition of basic skills of reading and writing a luxury and even

¹ 1950 U. S. Census of Population. U. S. Summary, Detailed Characteristics, P-C1. Table III, p. 207-09.

² *Ibid.*

sinful. Certain of the Amish groups in Pennsylvania and German rural groups in Wisconsin are examples of this.

5. Other groups are in such a position that physical facilities for schooling are not readily available. Rural farm people in low income areas and, in particular, rural Negro families in areas of low density of population and segregated school systems have to make considerable sacrifice to send children to school, and especially high school. This sacrifice may not be made in view of the fact that in the short run the older children need to earn money for the family and in the long run the increased opportunity is not worth the investment of time and resources.

If current experiences were to continue, an investment required for four years in high school for nonwhites in both the South and the non-South would result in increasing their income only half as much as for whites.³

Economic Affairs

Entrance into the labor market is not accomplished in a single step for most young people and the entrance is guarded by sets of regulations which are designed to take into account levels of maturity. As with education, both the legal and the operational patterns for such entrance vary from state to state. Although most states preclude public employment for those under 16, the Census Bureau continues to report labor force data for those 14 and above.

An increasing number of young people who are in school are also in the labor force. In 1950 one in seven of the boys 14 and 15, and one in four of the boys 16 and 17 who were enrolled in school were in the labor force. For those not enrolled in school two out of five who were 14 and 15, and three out of four who were 16 and 17 were in the labor force. For girls the proportions were not so high. Only one in twenty of the girls 14 and 15, and one in eight of the girls 16 and 17 who were enrolled in school were in the labor force. For those not enrolled in school, one in eight of the girls 14 and 15, and one in three of those 16 and 17 were in the labor force.

For those who are in the labor force, child labor laws have been enacted which specify the number of hours a day, the time of day and the kind of work which may be done at different age levels. These do not apply in general to work in family enterprises or to farm

³ Herman P. Miller. *Income of the American People*. New York: John Wiley and Son, 1955. p. 45-48.

work. The ages of 14, 16 and 18 are frequently used as points at which different sets of regulations are established.

Political Functioning

In the area of political functioning and in related areas which have been subject to legal controls, there is no single age which defines adulthood. The closest to a single age signifying adulthood is 21, and it is also the highest age of all the legal and cultural definitions of responsible age. The legal voting age in most states is 21, although many states have been seriously debating a proposed reduction to 18. One of the principal arguments in support of such a change has been in terms of another government action—military service. In general the government has established the right to induct young men at 18 while those 16 and 17 who have received parental approval may volunteer. Legal majority is for most purposes set at age 21. Legal responsibility for actions, however, may be set at a considerably younger age. In many states young people under 16 are handled differently by the courts on the general basis that those who are 16 or over are responsible for their actions while those under 16 may be thought of as below the age of full responsibility and still subject to family control.

One legal recognition of maturity is the right of an individual to use a public bar. The minimum age for this varies from 18 to 21 in different states. Legal right to drive an automobile also varies by state. In some instances an intermediate period is set up in which driving is permitted if a person with a driving license accompanies the young driver. In addition, those with a junior license are not permitted to drive after dark.

Legal age of marriage is another symbol of adulthood. As in the case of military service, a lower marriage age is possible if parental consent is obtained. Eighteen is usually the terminal point of parental control in this regard.

The following is a summary of some of the points referred to above as they appear in the Penal Law of New York State.⁴

1. It is illegal to:
 - a. Employ a child under 16.
 - b. Imprison a "child" under 16 with "adults."
 - c. Sell firearms and other weapons to a child under 16.
 - d. Abandon a child under 16.

⁴ Michael F. Friedman, editor. *The Penal Law of the State of New York*. Eagle Library No. 412, Vol. 106. The Eagle Library, Inc., Brooklyn, N. Y.

- e. Sell alcoholic beverages or cigarettes and other tobaccos to a child under 18.
- f. Permit a child under 16 to gamble or admit a child to a reputed house of prostitution.
- g. Tattoo a child under 16.
- 2. In recognition of immaturity:
 - a. Persons under 16 shall be considered delinquent rather than fully accountable for actions.
 - b. Separate courts shall be operated for those under 16.
 - c. Possession of firearms is prohibited.
 - d. Consent to go with a person accused of kidnapping is not legal for a person under 16.
 - e. Sexual relation with a girl under 18 other than one's wife is considered rape regardless of consent.
 - f. It is illegal for a pawnbroker to receive goods or make loans to a child under 16.
 - g. When children under 16 are committed to an institution, it should be an institution of the religious faiths of parents whenever possible.

It will be noted from an examination of the above that the age of 16 appears to be an age of assumption of responsibility in many areas of conduct for both boys and girls. The term "child" is used to refer to those under 16 and "adult" for those 16 and over except in the case of a girl who is still considered a child until she is 18 as far as sexual relations are concerned.

Cultural Practices

These legal approaches to definitions of responsibility use a physical age rather than a measure of maturity. In addition to these legally prescribed indices of maturity, a number of other indices of maturity are to be found in various institutional areas. In religious development the age of 12 has special meaning in Catholic, Jewish and Protestant groups. In certain Protestant sects admission to full church affiliation is not permitted until the age of 12. Special ceremonies are frequently observed either at the time that the person becomes 12 or at some particular period during the year, in which all those who became 12 during a stated period participate.

In the courtship period of adolescence there is generally no specific age at which courtship may normally be expected to begin. However, individual communities frequently establish points at which formal dating is permitted. The "coming out" parties for the debutantes vary from community to community but usually come at the early post-high school period.

In this examination of cultural practices with reference to the attainment of adulthood several points are clear:

1. The ages of 21 and at points 16 are used extensively as both a legal and nonlegal definition of adulthood.
2. Both legally and operationally there is considerable variety in the age at which relatively full responsibility is recognized.
3. There is a range in age for the same area of activity among regions, states and communities.
4. In a number of areas there are patterns of recognized gradation of maturation while in some areas this transition is abrupt.
5. In terms of the normal pattern of age-grade program through school, some of the more important gates to adult action are not opened to young people at the termination of their secondary education. Entrance into the labor force can begin prior to normal completion age of high school, while voting and legal majority come three or four years after graduation. However, a look at the number of instances in which the sixteenth year is the turning point, as shown in New York State, will indicate the extent to which important areas of activity for young people move from parental control or responsibility to personal responsibility prior to the age at which young people finish high school.

Maturation as a Process

The differences in the ages at which different kinds of activities are allowed may be seen as related to assumptions of maturation at different rates in different areas of experience. Presumably, one reaches the age of self-direction in most areas of experience before one is judged to be qualified to vote. It would seem that young people are able to participate in the labor force before they are able to leave home and engage in the range of activities which military service entails. A young person can work in public employment along with adults before he can have the right to purchase cigarettes or buy a drink at a bar. A girl can work along with women of all ages, married or otherwise, but does not have the sexual freedom of others until she is 18 or more.

One may argue that these laws are out of date or are not based on sound knowledge of the development of young people. On the other hand, the new areas of activity which are legally permitted to young people as they move along the age cycle from 12 to 21 may be viewed as steps which take into account the areas in which responsibility may be assumed without moving too abruptly into adulthood.

It is of course clear that young people mature at different ages and that the arbitrary use of an age is not scientifically sound. Those of us who are working in schools, however, function on an equally arbitrary base. We take children into schools in terms of birthdays and try to move them along accordingly.

In any event, the secondary school is dealing with young people who are at various stages in the process of moving from relative dependency to relative self-direction. The pattern of this movement is a function of the special life history of the individual involved which includes a unique genetic endowment, distinctive family experience, a particular set of peer relations, a combination of school experiences peculiar to that person, and a pattern of involvement in other institutional experiences in one or more communities which is uniquely his.

This individuality must be seen in its cultural setting. The individual grows up in a family whose adults give him and his siblings their unique genetic endowment. While each family pattern of interaction is distinctive, families of subcultural groups share many values in common. Since peer groupings tend to include persons of a common subculture, the activities of one peer group in that subculture are likely to be similar in character to other peer groupings. Although each school is a distinctive social system, schools have a sufficiently common structure and pattern of operation to permit extensive movement by pupils from one school to another with relatively little disadvantage to the pupils. While the individual takes part in a particular set of institutions in a particular community, he is by and large limited in his choice among a relatively few institutions which are common to at least the subculture of which he is a part, if not to the total culture. Communities have sufficient communality to permit the sociologist to make meaningful generalizations ranging from population structure to ecology to patterns of decision making. *The secondary school is faced with the task of working with adolescents, recognizing their individuality and their common group life.* Educational policy is not made for the individual but with the unique qualities of individuals in mind. School policy is never made in a vacuum. While few would argue that the social context within which the school functions can be ignored, there is need for attention to the nature of the relationship of policy making to the social environment.

School Policy and the Social Context

The development of the school curriculum for a particular school is a social process. This process is characterized by the conjunction in

a point of time of a large number of elements which were operating before and will continue to operate after they influence the particular policy decision. For example, the emphasis which will be given to club activities in the school will be decided through taking into account such elements as interests of the potential club members, the educational points of view of staff and influential community leaders, the tradition of the particular school, the physical facilities at the school or in the community, and the activities of other communities. In a sense, each of these elements exists apart from the particular problem for which a decision is to be made. These elements come together in a dynamic way at the time of making the decision.

The making of policy may be thought of as a formal process. Locally, policy may be made by the teacher in the classroom, the faculty as a formal group, the administrative officer, the school board, or the local governmental units either consciously or as by-products of other actions. On the county and state basis, professional education organizations, education administrative officers and government bodies make policy which sets the framework within which schools will operate. Action on a national scale is taken by the legislative, judicial and executive branches which influence directly or indirectly educational policy. For example, the Supreme Court decision on segregation and a legislative action such as the Smith-Hughes program represent judicial and legislative actions affecting policy.

However, the actions referred to above are predominantly deliberate and formal actions. Perhaps even more important is the influence of events in the society which are the results of millions of individual and group decisions designed to meet the wide range of problems that individuals and groups face from day to day. In the local school district, the introduction of a new industry, the struggle for increased recognition and power by a minority group or certain individuals, or the change in the birth rate, alters the patterns of human relations in the community and, directly or indirectly, requires the modification of existing policies with reference to the school, regardless of the educational philosophies of the educators.

The issue faced by educators and others in a policy making position is therefore not simply a normative problem of "Should the local community or society be considered in determining policy?" The problem is how the social context shall be taken into account. The individual and group decisions on the one hand, the adjustments brought about by events outside the institutions of education on the other, are not mutually exclusive. The decision reached by the county

organization of teachers on a curriculum problem may well be in response to new population groups that have come in as a result of the building of a large housing development. On the other hand, the willingness of a local school board to institute an adult education program may result in the attraction of an industry to this district.

Does the School Mirror Society?

Several points of view have been advanced to interpret the relationship of the school to the society. The concept of the school as a mirror of the society has frequently been used. This is a difficult concept to apply when we test out the meaning of such a proposition in the real world. If the school is a mirror of the society, this mirror is the kind which may be found in the amusement park which reflects the object before it in a distorted way. In the reflection certain features are enlarged, others are reduced in size or made narrower. For example, Hollingshead in a study of Elmtown showed that "the home an adolescent comes from conditions in a very definite manner the way he behaves in his relations with the school. . . ." He does not say, however, that there is a one to one relationship between the class position of his family and his relationship in the school.

It is clear that no single institution can be functionally too far out of line with the other phases of the society of which it is a part. The people who are in education, including the students, staff members, maintenance personnel, school board members, PTA members and others, are also members in churches, families, political parties, clubs and other institutions of the community. The conceptions which these individuals hold regarding the school will also be expressed in the operation of the other institutions in which the persons participate.

However, any particular school system, or school systems in general, operates within a *range of tolerance*. That is, the schools as well as other institutions, may be poor or good, they may be reactionary or progressive, they may be operating as they have for a long time past or they may be rapidly changing. Whatever way we look at the institution, there are limits—a range of tolerance—beyond which any particular community will not permit its school to go on any of the polarities listed above. If educational changes are taking place at too rapid a pace for the community, action will be taken by the community to impose checks. On the other hand, if the schools get to be too conservative, parents will object to the inadequate

education their children are getting or community leaders will make their objections known.

The definition of the limits—the range of tolerance—is peculiar to each community. In some communities the range of tolerance is very narrow. In others, the range may be quite wide. In the former, creative educational leadership is not expected since the character of the school is prescribed in detail. In the latter, the character of the school program is likely to be more largely in the hands of the educators. In this case, with imaginative leadership and a competent staff, the schools may be dynamic institutions in the community and, conversely, with poor leadership and staff, the schools may be relatively unimportant in the lives of the students and in the life of the community.

Communities vary over time in terms of the range of tolerance. At times, a community may allow a relatively wide range and at other points in time, the range may be narrowed. For example, when a community gets concerned about "subversive" materials, the educators may have less freedom in choosing materials.

In addition, the range may come at any point on the scale of educational quality. For example, in some communities the top limit is considerably lower than the bottom limit in another community. To illustrate this, the normal expectation in the use of community resources in the school in one of the upper income residential suburbs may be considerably different from that which would be tolerated in a stable rural community.

In terms of this analysis, the school is therefore not simply a mirror. In some instances, the school may in fact be allowed to operate in such a way as to change the community or the society to a degree if the range of tolerance is wide. The narrower the range, the more likely the school is to be a mirror of the community or the society.

The concept of range of tolerance may be applied to the social organization of schools themselves. Some of these provide for a wide range of action and others are more rigidly structured. One of the important though perhaps unanticipated consequences of extending the degree of active involvement of a wide range of citizens in school affairs or of involving staff members in policy making is the potential narrowing of the range of tolerance. Through inviting attention to, and creating a sense of individual and group responsibility for the institution, the school leadership is not as free to make its own decisions. This may have either positive or negative consequences. The school leadership may be forced to abandon a point of view which

is judged to be outmoded by the community or it may be forced to modify a point of view which the community judges to be too progressive. Involvement may result in a reduction of the instances when poor schools are allowed by a community but it also creates a social relationship in which the educational leader must get the explicit backing of the community for a modification of educational practices.

In summary, the social context within which the school functions is related to policy making and curriculum building in the following ways. The social context:

1. Determines who the persons and groups are that will be involved in the decision making
2. Conditions the way in which the problem will be seen by those making decisions
3. Influences the priority of a consideration of the problem
4. Makes available acceptable courses of action in dealing with the problem.

In the discussion which follows several aspects of the social context are examined in such a way as to indicate their significance for curriculum building.

Significant Elements in the Social Environment of the Adolescent

Three major questions are discussed in this examination of the social context. What are some of the elements of our society which have most significance for the building of the school program? How may these be approached in order to yield fruitful results? What are some of the major issues for curriculum development which may be derived from such an analysis of the social context?

In dealing with the first question, six elements in the social scene are identified as being of major importance, now and in the immediate future:

1. *Changing status of youth in the American social structure.* Due to demographic, educational and ideological changes, important institutional adjustments in many phases of our society are taking place.
2. *Changing patterns of community life.* In response to technological developments and certain shifts in values, the social map of America is being modified in terms of the location of the people and of the social structure of urban and rural communities.
3. *Changing occupational patterns.* Major adjustments are taking

place in regard to who works, what kind of work is done, and the relationship of the worker to his job or profession.

4. *Changing educational and income structure.* Wide differentials in income and education which formerly characterized our population have been greatly reduced, with important consequences in social relations.

5. *Changing intensity of religious and ideological commitment.* Following a period of liberalism, integration and experimentation, religious groups of all kinds are experiencing a resurgence of concern for the orthodox or neo-orthodox, the distinctive and the fundamental. Politically, the unorthodox is frequently considered to be a form of treason and contrary views are reduced to an ad hominem basis.

6. *Changing role of our nation in respect to nations in the early stages of technological development.* With a military stalemate between the United States and Russia and with the prospect of technological equivalence in the foreseeable future, our relations with the other nations of the world involve ideological as well as military and political elements in a new pattern.

In a consideration of these elements, those aspects which have special meaning for the adolescent and the secondary school will be emphasized. Only the first three of these elements will be discussed because of the desire to give more detailed treatment of a few, rather than a very restricted analysis of a number of elements. In the process of considering the three elements which have been selected, some attention will be given to other dimensions of the social context.

Changing Status of Youth in the American Social Structure

In the current discussion with reference to the increased number of young people enrolled in our schools, the change in the absolute and relative number of persons in the younger age levels is frequently referred to as the "bulge." This is a misleading figure of speech since it implies that there is not only a point where the increase in size began but also a point where it ends or will end. The relatively high crude birth rate has been sustained for over ten years. To this might be added another five years during World War II when the rate was substantially above the low rate of the depression period. In a very few years the post-depression babies will be at the point in their life cycles when they will begin to have children of their own. Even if there should be some reduction in

the birth rate for the new generation (and there is no indication of such a change), the size of the generation is such that the number of babies will be high in comparison with prewar babies. The special problem raised by the increase in the crude birth rate is therefore not temporary but continuing. We are faced with a new plateau at the very least and with the likely prospect of an upward slope for a considerable period.

Changes in Social Structure

The change in the absolute as well as relative number at the various age levels requires a number of adjustments in our society as a whole as well as in any particular community. The organized life of a community or a society is based on the number of people who can play certain roles and who have certain complementary expectations. If any change in the numbers in that social unit were distributed equally throughout the age levels, each institution could expand at the same rate without disturbing the basic patterns of organized life. This, of course, does not happen. The new entrants into a social unit come either through birth or through migration. Changes in the birth rate affect the age structure in the short run only at the bottom. While the migration will occur at all age levels, the migrant population is usually concentrated very highly in the young adult levels.

Those forms of organized social life serving young children and the young adult population have to be expanded. Since any given society is a functionally interrelated unit, adjustments to meet these age groups bring about changes in other parts of the society. For example, the large migration to the West Coast increased the number of Congressmen in that region and also gave the region political power which previously it had not had. Correspondingly, other regions experienced a reduction in their relative importance. The pressure for federal aid to education, with the accompanying change in the definition of the role of the federal government in the field of education, would likely not have assumed its present dimensions if the change in the number of children had not come about.

The change in the proportion of the population in the dependency roles—children and retired—requires economic adjustments if the level of living is to continue to increase. The entrance of married women into the labor force is one such adjustment. Increased investment in capital goods and the extension of automation are other means to provide an increased per capita output.

Problems of Institutional Adjustments

The pressure for economic adjustments is matched with similar pressure for adjustment at other points. Increased allocations of personnel and funds for service institutions for the new population have to be made. If funds and personnel are used in such services they are then not available for alternative activities. The shortage of teachers is one indication of the difficulty brought about by inadequate adjustment to the change in population. This problem is further aggravated by the fact that the age group from which teachers would normally be drawn is small because of the relatively low birth rate in the decades of the twenties and thirties.

The struggle for funds and personnel is even more serious in the large number of other areas of social life for which the public is not legally responsible. Those youth serving agencies and youth sections of organizations such as churches, which depend on voluntary leadership and private sources of funds, are faced with problems of increasing scope and intensity. As with the schools, the standards of service have been raised and the scope of programs has been increasing. These standards and scope were developed in a period of relative decline in size in the population being served. If the community were satisfied now with the quality of service to the youth which was the normal expectation two generations ago, the provision of that level of service could be achieved with relative ease in terms of cost and personnel.

However, this is only part of the problem. The development of this wide scope of service to youth during the past two generations has brought about modification in other parts of the society. While families have not lost any of their earlier functions, they do share with other institutions to a much greater degree many of the functions for which they formerly had major if not exclusive responsibility. For example, the family now shares with youth serving agencies the supervision of nonschool time activities. One of these is supervised recreation which takes the place of unguided play or parent-supervised work at home. In other instances, nonschool activities are personal development activities provided by the youth serving agencies. In such cases, the family does not feel that it has the sole responsibility for these phases of personal development. Since large numbers of parents have developed these patterns of expectations, and have organized their personal relationships and commitments accordingly, pressure to return to the former pattern of relationships

in which the family had major responsibility for the functions which are now shared would meet with considerable resistance.

Patterns of Adjustment of Youth

This problem is of much greater significance for the adolescent since the parents of elementary age children have in general retained a larger share of the function of the traditional family. For example, the number of mothers with children under 10 who are in the labor force is very small in comparison with wives with no children or wives with children 16 or over. In contrast, the development of "codes of conduct" for the adolescent by collective action of parents and with the aid of professional workers, represents a willingness on the part of parents to shift the responsibility for behavior of their children to a nonlegal ad hoc association of parents or perhaps to a PTA.

The gang pattern of peer age association has been given considerable attention as a social form associated with juvenile delinquency. Peer age groupings are of course universal for children and youth and, in a similar way, for adults also. Some peer age gangs or friendship groups operate within a network of supervision exercised by parents and voluntary workers and professional workers in youth serving agencies. Within this arrangement many of those in the adult supervisory role may be aware only of the individuals or the total group, without appreciating the presence of the persistent friendship groups.

In other instances, the peer age group functions with relatively limited direct or indirect adult guidance. The models for the organization and behavior of the gangs are likely to be found in similar groups already functioning or from older youths. In view of the proportionately large number of young people coming into the adolescent period in a society geared to the institutional arrangement devised to handle a substantially smaller population, it seems almost inevitable that we will experience adolescent problems in scope and intensity far greater than we have experienced to date.

The provision of leadership and institutional forms or social mechanisms for serving the numerical increase of adolescents is still further complicated by the patterns of migration. The flight to the suburbs has been of such magnitude that neither the sending areas nor the receiving areas have had time to develop the range of social processes necessary for meeting the variety of individual and social needs of the people involved. As suburban-bound urban dwellers have moved

out of the central city, other persons have moved in. Following the well established American urban pattern, the families moving into the urban areas to take the place of those who have moved out are likely to be of lower economic, educational and ethnic status. The private and voluntary institutions such as churches and youth serving agencies lose their lay leadership through this migration and find themselves serving a population which may well be of a different social, religious and ethnic background. In a somewhat different manner, the very rapidly expanding suburb has to build a whole new set of institutions or expand existing ones so rapidly that the older patterns are no longer recognizable. The suburbs with somewhat less rapid growth face the problem of absorbing a population which is selective in its age structure and probably in economic status, into a set of social arrangements developed for a population with a more normal age distribution and a wide range of economic statuses.

In some of these suburban communities made up largely of young families, the growing children have no well developed models of the age groups ahead of them available as guides for their own development. Communities of this extreme type are relatively rare. The situation more frequently encountered is the one in which the behavior patterns of the indigenous adolescents are not acceptable to the newcomers. Since the existing patterns of adolescent behavior are a part of a whole community pattern, changes for the adolescent could not come without adjustments in behavior and values throughout the community.

Adjustment as a Community Problem

The population dynamics and the associated adjustments in social arrangements have been examined in general terms. It should be emphasized that each community has experienced the population changes in its own unique way. Each community had a distinctive population structure before the changes came about and has responded to the population shifts in terms of the community's values. Communities in the rural middle south have lost population heavily. Plans for school construction developed in the early 1940's had to be abandoned because of the loss of population. Schools in some of the coal mining areas of Pennsylvania have had to dismiss teachers because of loss of population.

On the other hand, some areas have experienced phenomenal growth due to the location of a large industrial development as in South Carolina and in the atomic energy plant areas. In some instances, the

loss of population from the central parts of cities has been made up by in-migration of Puerto Ricans. In others, the immigrants have been largely Negroes. In still others, the new residents have been migrants from the Appalachian Mountains, or from the rural South. The problem faced by the secondary school in each instance has been quite different although social processes at work have been essentially the same.

Changing Patterns of Community Life

The new patterns of location of the population introduce a range of interesting problems for consideration. Three of these will be considered—the development of the suburb, the shifts in the composition of central cities, and the decline in density in rural areas.

Suburbs

The suburb is not a single social form. We have long had the residential suburb made up largely of upper socioeconomic groups. In addition, we have had for some time the industrial suburb. With extensive developments in transportation facilities, these industrial suburbs are no longer company towns. Workers may drive in from the central city as well as from surrounding suburbs. However, the population in the industrial suburbs tends to be largely related to the industries which are there. In some instances, these are in fact old towns which have become suburban by virtue of being surrounded as the central cities have expanded. In this case they are likely to have within them a wide range on the social spectrum.

The marked increase in the proportion of the population in the middle income levels, together with major changes in the financing of home buying since World War II, have contributed to the opening up of suburban life to a substantially larger segment of the population. These new medium priced houses may be in communities with a relatively homogeneous price range or may be in communities whose price range of homes extends from middle to high. In most instances the new suburbs are not available to the lower income families or to Negro families of any income range.

Central Cities

The consequence of this development is a very important shift in the ecology of our major cities in the North and, to a degree, in the South. This new pattern is characterized by a central city made up largely of Negroes, Puerto Ricans and low income whites surrounded by white suburban communities which, in turn, differ from each

other in the range of income levels contained in them. In this pattern there is a segment of the central city of very high rentals occupied by white people, usually near the center of the city. Washington, D. C., is a good example of this new development. Chicago is moving rapidly toward this pattern. A similar pattern is developing in New York City. Efforts by the leaders of the central cities to prevent the development of this ecological design have taken the form of subsidizing middle-income housing. To date these effects are of relative insignificance in terms of the magnitude of the problem.

This trend is being accelerated by the rapid out-migration of Negroes from both the rural and urban South. The tension accompanying the legal moves toward desegregation in schools and in other areas, and the limitations in economic opportunities are some of the factors at work which encourage out-migration.

The problems for the secondary schools related to these developments are of tremendous significance. Secondary schools in the larger cities are staffed mainly by white teachers who do not choose to live in the areas served by their schools. In addition only 2.6 percent of the teachers in the New York portion of the New York-Northeastern New Jersey standard metropolitan area were nonwhite in 1950, although 10 percent of those enrolled in school were nonwhite. In the Chicago area 5 percent of the teachers and 15 percent of the pupils were nonwhite, while in Atlanta 23 percent of the teachers and 38 percent of the pupils were nonwhite.

New York, Chicago and Washington, D. C., have been giving serious consideration to the problems which have accompanied the growing proportion of their nonwhite school population. In 1955 New York City completed a study of changes of segregation in its schools and came to the conclusion that the distribution of the population into ecological areas together with the out-migration of white students resulted in a number of virtually all Negro schools. It was decided that this could be met only by trying to locate schools in border areas or by transporting students outside of their areas of residence.

Educators have long assumed that there were important values in a school made up of students from a variety of ethnic, racial and socioeconomic groups. The scientific evidence with reference to this proposal, either for or against, is very meager. If the assumption is a valid one, serious attention will need to be given to ways by which this variety may be insured. The social values which have given rise to the distinctive characteristics of the suburbs and the central cities are not likely to change very rapidly. Since the secondary schools

tend to serve a larger population than the elementary schools, there is a greater likelihood that the secondary schools will contain a wider cross section of students. However, there is the increasing probability that the secondary schools in the larger metropolitan centers and in the suburbs will be composed of students from families drawn from somewhat similar strata of the society. The evidence from present studies does not indicate whether this makes any difference in the social mobility of the students served.

Rural Communities

The problems encountered by the rural areas which are faced with a reduction in the density are of a somewhat different order. In certain rural areas of New England, the population reached its peak over a hundred years ago. In towns in New Hampshire and Vermont the current population consists of only a few families where a hundred years ago much of the area was settled and actively farmed. The cellar holes, lilac bushes and rock fences in relatively mature forests indicate the presence of homesteads long since abandoned. A similar development is now taking place in many areas of the South where farms are being abandoned. In some instances these abandoned farms are being absorbed into larger, more economical units. In many instances, the abandoned farms are used as pastures or are permitted to revert to scrub pine.

The community life in such areas is characterized by disorganization and the institutions are faced with major readjustments. Since many state departments of education have a relatively inflexible attitude toward the minimum pupil-size of secondary schools, consolidation of units is encouraged. This results in the necessity for transporting children long distances. Much time and expense are involved in transportation over such distances. There is also increasing disorganization in the local communities as their schools are moved farther away from them. The adjustments in the economic base which this abandoning of uneconomical farm units represents, however, must be counted as an economic gain. The financial return to labor in the nonfarming activities into which the migrants go is likely to be several times larger than that which was gained from farming.

Even with the large number of migrants from rural areas and numbers of others who have gone into nonfarming occupations while maintaining their rural residence, there are still a million and a half farm families whose level of production is such that they could leave farming without affecting appreciably the volume of farm products

on the market. The voluntary movement of large numbers of these is likely to continue in the immediate future as it has in the past. As it occurs the secondary schools in such areas are faced with several problems. What kind of curriculum should be provided for a population, part of which will remain in the community and a large part of which will soon seek nonfarming occupations either in the same region or in different regions? For those who are likely to remain, should the education involve vocational agriculture courses designed to help them become better subsistence farmers or should it be in the direction of a more economically profitable agriculture which will involve the use of a large amount of capital which they do not have and are not likely to have in the immediate future? Should those who are likely to leave the rural areas receive a general education only, or should they also receive some kind of vocational education which will aid them in adjusting to an industrial service urban society? Can the employer in the urban area do his own training better if the students have acquired a set of basic skills? How can students be prepared for a vocational market, the requirements of which are unknown except in general terms, since the job opportunities in the place to which migration occurs may not be known?

The concept of bigness and efficiency as necessary attributes for rural secondary schools needs serious examination. While efficiency is a value, there are other values as well. We have lazily assumed that the only way to provide variety in a secondary school curriculum is to have a large enough number of students to provide a teacher for each major special interest. This is a proposition which has not been critically examined. As a basis for action, it is a proposition which has such serious bearing on the rural communities, and particularly on those with a declining population, that study of and experimentation with all alternatives need to receive high priority.

Changing Occupational Patterns

As a third major social development affecting policy for the secondary school, the changes in the prospects for the work life of the new generation of students are of special importance. One need not be an economic determinist to accept the importance of aspects of economic life such as amount of income and kind of occupation as critical in the American system. For example, the importance of occupation as indication of general social status has been shown in a number of studies even though all of the factors at work which

give occupations and income levels their importance for social prestige are not clear.

Changes in the economic characteristics of a community as well as of the society are of direct importance to the secondary school student in terms of the changes in knowledge about, and interest in, jobs which are available to him, and to a degree in the kinds of aspirations which he will have. With the development of the secondary schools in the early part of this century a large proportion of youth was excluded from the labor market. This reached its climax during the depression period when there was a scarcity of jobs available to both adults and youth. A reversal in this trend began during the war and has continued. An increasing proportion of young people in secondary schools is also in the labor force in urban as well as rural areas. In 1950, among boys 14 and 15 enrolled in school, one in seven was employed and one in four boys 16 and 17 enrolled in school was employed.⁵ Among girls the corresponding ratios were one in twenty for the 14 and 15 year olds and one in eight for the 16 and 17 year olds. For the 14 and 15 male group not enrolled (150,000), two out of five were employed, and for the 16 and 17 group three out of four were employed. Among girls, about one in eight of the 14 and 15 year group not enrolled (146,000) was employed; and one in three of the 16 and 17 year group was employed. Over 900,000 young people 14 to 17 were both enrolled in schools and in the labor force, most of them on part-time jobs. In this same age group (14 to 17), 1,360,000 were not enrolled in school and about half (649,000) were in the labor force.

In the period of 1940 to 1950, the percentage of youth 14 and 15 in the labor force doubled, and those 16 and 17 increased by 10 percent. These increases occurred among both boys and girls. In 1940 there were only 300,000 students in the age group 14 to 17 in the labor force as compared with 900,000 in 1950. A similar change has taken place for the college age youth. For students 18 to 24, 33 percent were in the labor force in 1950 as compared with 20 percent for the same group in 1940.

Work Patterns of Adolescents

What kinds of work are available to young people as they enter the labor force? The majority of boys who are 14 and 15 and working

⁵ Data on labor force characteristics and education are derived from U. S. Census of Population, Department of Commerce, Series P-C1, Detailed Characteristics, U. S. Summary, Tables 103, 111, and 122, and Special Report P-E No. 5B, Education, Tables 10 and 11.

are below the grade in which they normally would be if they had progressed through school in the usual age-grade pattern. For this group a large portion were engaged in farm work either as unpaid family workers or as hired farm workers. The next largest portion were working as sales workers. The remainder were scattered in small proportions among the other major occupational categories. For the 14 and 15 year old boys who were progressing normally through school and who were working, the proportion engaged in farm work was only half as large as for the retarded group. Nearly 30 percent were employed as sales workers, and close to 10 percent were employed as operatives in industry.

For the 16 and 17 year old boys, the majority of those working were again somewhat behind the grade in which they would have been. Although about 50 percent were engaged in farm work, about 15 percent were engaged as unskilled laborers, 15 percent as factory operatives and only about 5 percent as sales workers. For those who were progressing through school on schedule, clerical and sales work attracted about 25 percent of those working, about 20 percent were working in factories, while less than 25 percent were engaged in farm work. For boys 18 to 24, the trends observed in the 16 and 17 year old boys continued. There is a marked drop in the farm employment and significant increase in factory work and in clerical work. Employment as sales workers reaches a level which is maintained in general for older age groups.

For girls, the patterns described above differ at a number of points. There was a substantially lower extent of age-grade retardation at each age level. For those who were retarded, a high proportion of those working were employed as farm workers, factory operatives, and private household workers. For those 14 and 15 who were on schedule in age-grade progress through school, private household work and sales work were the important occupations. For the 16 and 17 age group, clerical and sales work lead the list, private household and other service work came next, followed by factory operation. Farm work was engaged in by very few girls in this age category.

For older girls, the service work declined rapidly in importance, and clerical continued to increase in importance. Almost two-thirds of girls 20 and 21 years of age who were high school graduates and working were engaged as clerical workers, while only about one in thirteen was a sales worker.

The Negro youth had much more limited range of work opportunity available to them in the North and West as well as in the South. Very

few had clerical and sales jobs. The major sources of employment were in private household service and other service jobs, unskilled labor and farm work. Past the high school age an increasing number of both male and female Negroes found employment as factory workers although the proportion was substantially less than for white persons.

This review of the induction of youth into the labor force does not include all the factors which need to be taken into account. For example, in our analysis of labor force we do not include the work of the housewife as an occupation. If someone is hired to keep house and take care of children, this person is in the labor force. The housewife who does the work herself is not so classified. This is of importance here since an increasing number of girls of high school age are married. For some of them, this means that they are not in the labor force while still in school and may not be after graduation. In 1950 over one in eight who were 17 was married, and one in sixteen who were 16 was married. In 1950 over 225,000 girls 14 to 17 were married. This is an increase of 100 percent since 1910 while the population in the age group was increasing only about 25 percent.

Youth appreciates the importance of occupations in our society much as do the adults. Surveys of the prestige which is judged to be associated with occupations have been made among various age groups in several parts of the country. While there are some variations, the very high correlation between the different populations studied is striking. In general, youth do not make the fine differentiation at the top and at the bottom of the scale which the adults do. Studies in other Western cultures have revealed very similar prestige ratings in different countries for the same occupations.⁶ By some means, young people come to adopt a general prestige system of occupation and engage in their own career patterns with this knowledge in mind.

Projected Changes in Occupations

What are the changes in the economic scene which are affecting the job opportunities for the students who are enrolled in secondary schools?

1. *The proportion of those working in farming will continue its long term decline.* It is beyond the means of most young people who

⁶ Alex Inkles and Peter H. Rossi. "National Comparisons of Occupational Prestige." *American Journal of Sociology* 41: 329-39; Copyright January 1956 by the Univ. of Chicago.

might want to start farming to provide sufficient capital to bring in a comparable income from farming to that which they could expect from many other occupations. Since the present rural farm birth rate is substantially greater than necessary for replacement of present operators, farming is not an occupation into which a large number of nonfarm youth are likely to go. For a period of time at least, the increase in productivity of the farmer will continue to be greater than the increase in population.

2. *The proportion of the labor force working in industry will probably not increase.* The percentage of the labor force working in manufacturing has not changed markedly for the past 50 years. Continued increase in productivity brought about largely by higher investments in jobs has made possible a rise in the productivity per worker at an increasing rate. In many industries, the rate of increase has passed the 2 percent per annum mark. The passing of minimum wage laws and the continuing pressure for improved working conditions have made it necessary for the employer to use labor efficiently and sparingly. Increased use of machinery for the routine manufacturing jobs has characterized the development of American industry. With the further development of electronics, communication, and other phases of technology, the pattern has been further extended to a phase popularly referred to as automation. While there is some debate as to whether this is something new or a major extension of an older pattern, the impact on the economic society in general is far reaching. In those areas of production where it can be applied, an upgrading of many of the factory workers is a necessary corollary. Those workers who are displaced and who are not absorbed in the production of the new equipment must find employment at new points. New industries, such as television, are constantly arising as a new source of employment. Service activities will absorb the remainder.

For the young person, the development of automation will have two somewhat related consequences. The technical requisite of work will be such that it will be more difficult to work up through the system from the bottom. As a corollary, the beginning workman will find it increasingly important to enter the system at a higher level than he might in the earlier industrial period.

3. *Service occupations will expand.* Over the history of the American economy, an increasing proportion of the labor force has been employed in service occupations. Some of these service occupations are also affected by automation. Those thus freed are available for related or new service occupations. In a sense, the higher the proportion of

the labor force of a society which can find employment in the service occupations, the higher the level of living of that society. All of the professions and quasi-professions will need more and more personnel as the level of living of the society rises. In addition to these occupations, the other service occupations will also be at a higher premium.

The character of many of these service occupations as well as most of the jobs in industry is subject to rationalization to such a degree that specific preparation for them must be viewed as a short term investment. A dictionary of occupational titles does not have the continuity of a dictionary of words. The employer who says that he does not want the schools to try to train persons to work in his business or industry is recognizing the dynamic character of technology and the changing relationship of workmen to the productive enterprise.

Schools have long been operated on the principle of terminal education, first at the eighth grade and later at high school. However, education for their graduates continues in various ways. The most extensively developed is the Cooperative Agricultural Extension Service which brings to the farmer the latest scientific developments in farming. Through the 4-H Clubs, farm youth are also reached in the same way. In occupations other than farming, educational services have been less well developed on a formal basis. However, through on-the-job training, special classes sponsored by private industry, private commercial schools, extension services of colleges and universities, correspondence courses, supervised apprenticeships, union sponsored classes, and a variety of other organizations, education continues for many in the labor force. These forms of continuing education are becoming a regular feature of both private enterprise and public education. For example, the American Telephone and Telegraph Company has an extensive educational program designed to serve two important functions—the upgrading of employees and the retraining of employees to fill new types of jobs brought about by technological changes. In adult education programs in public schools and community colleges emphasis is being placed on continuing education of a vocational rather than an avocational character.

In spite of the shift from the concept of the secondary school as “last chance” education, the curricula of many secondary schools have not been modified significantly. The specific direction of modifications which might be made is not necessarily implicit in the economic shifts referred to above. Some of the attention to vocational education and the reduction of interest in general education seems to have been

based on the "last chance" principle. On the other hand, some of this emphasis seems to have been brought about by the development of the concept of a high school education for all. This has meant that the schools have had to provide a meaningful educational experience of some kind for a large number of young people whose cultural and intellectual background is substantially different from that which characterized the more selective student population of two and three generations ago.

For reasons of efficiency in administration of a school, and out of a commitment to certain equalitarian values, most secondary schools have limited the range of alternatives of course programs which students may take in the secondary schools. The general education available to all students very frequently consists of college preparatory courses, while the special education courses are likely to have a marked vocational orientation. The relationship between the general and the vocational, the liberal and the technical is a persistent problem in all educational enterprises. The necessity for the development of continuing education offers opportunities for a new range of experimentation in meeting this problem. As colleges admit an increasing proportion of the college age population, they will have to face the same problem in the coming decades which has been experienced by the high school as it became inclusive in its coverage. As a by-product, the college and the public school may close the gap in their relationships which developed when high schools became all inclusive while the college remained highly selective.

4. *Disadvantaged groups which have been excluded or in an unfavorable position in the labor force will find wider opportunities.* This category of disadvantaged includes such groups as women, Negroes, and the mentally and physically handicapped. Each of these groups presents a somewhat different story.

Women for at least the past fifty years have attended secondary schools in higher proportions than men. This is reflected in school enrollment data for the period of 1910 to 1950 as well as by the number of years of schooling completed. A turning point is reached at about age 18 when enrollment in college begins in substantial numbers. Above this age, the proportion of males enrolled in and completing grades becomes increasingly higher than the proportion of females. This preponderance of males in colleges has increased somewhat in recent years. However, the higher attendance of males in colleges is not enough to offset the advantage gained by females in high schools so that the median level of attainment of adult females is higher.

This higher education for females has not been accompanied by higher standing in the labor market. The rate of participation in the labor force varies markedly for different age groups. In the ages 20 to 24 over 40 percent are employed. This declines to a low of about 30 percent for women 30 to 34 and then rises again during the 40 to 44 age period. After this the participation drops sharply. For males, over 80 percent are employed from 20 to 65 years of age and for most of this period over 90 percent are working.

During the period from 1940 to 1950, there were substantial increases in the proportion of women working in most age groups. The increase in the 14 to 19 year group was discussed earlier. Although there was a reduction of working women in the 20 to 29 age group, above that age the proportion working increased substantially. This was particularly true for those 40 to 55 where the increase was about 50 percent. Almost all of the increase came among white women. The trend established during this decade has continued since that time and is likely to continue. As was pointed out earlier, the lower birth rate of the 1920's and 1930's has meant a reduction in the available males for the labor force.

A few samples of increases in related occupations for 1950 over 1940 are listed below:

**Changes in Percent of Females
in Selected Occupations 1940-1950⁷**

<i>Occupation</i>	<i>Percent Increase 1940-1950</i>
Accountants and auditors	170
Editors and reporters	100
Technicians, testing	260
Personnel and labor relations workers	135
Officials and administrators, public administration	70
Management: officials and proprietors	70
Clerical and kindred workers	80
Craftsmen, foremen and kindred workers	100
Operators, electrical machinery, equipment and supplies	140
Private household workers	65
Attendants, hospitals and other institutions	280

Negro workers. Due to the very rapid advances in educational attainment and the migration of Negroes out of the rural South to the urban South and North, as well as the scarcity of labor in a period of

⁷ U. S. Census of Population, U. S. Summary, *op. cit.*, Table 125.

full employment, there has been an extension of employment of Negroes in more lucrative occupations. As has been pointed out before, the Negro with the same number of years of schooling receives substantially less for his work, primarily because of the differences in the kinds of jobs which are available to him. This is shown most strikingly in the income of female Negro college graduates, a high proportion of whom in the South go into teaching.⁸ For the 30 to 34 year old female Negro college graduate, the median income in the South was \$2040 in 1950 as compared with \$2057 for the total females, Negro and white of this age and education. This was not true of males, only a fraction of whom enter comparable occupations (nonwhite \$2391 and total \$4203), nor was it true of the female high school graduates (nonwhite \$1129 and total \$1444). For the North and West, the same patterns existed at each of these educational levels, although the degree of the differential as between the Negro and white high school graduates was not as great in the North and West as in the South.

When viewed in perspective, however, the present differences are not nearly as large as they once were. The relocation of the Negro population is such the differentials may be expected to diminish.

Mentally and physically handicapped. Data on this segment of the population are not as complete as for many other groups in our society. With advances in our state of knowledge, advances in standards of service, and increasing experience in schools as well as in other areas of activity, fuller participation in our society by persons in this category is taking place. The development of the sheltered workshop for those severely handicapped is occurring in a number of communities. For those less severely handicapped, regular employment has not only been proven possible, but in general, profitable. The demand for labor during the war and during the postwar period of relatively full employment has encouraged attention to this group and other groups which had not been employed previously. This period has lasted long enough to build up institutionalized means of employing the handicapped. These institutions will likely become firmly fixed so that they will not be vulnerable to attack if the employment picture changes.

The problems for the secondary school which this development brings are involved and difficult. One of the important actions which need to be taken is the building of a new pattern of relationship to social agencies. The close relationship which existed between the social worker in the settlement house and the school two and three genera-

⁸ U. S. Census of Population Special Report. Education, *op. cit.*, Table 13.

tions ago has been largely lost as both social work and education have become more professionalized. A redefinition of the function of social agencies and schools needs to be made in order that the common objectives of each may be realized.

In this section, three major elements and a number of related factors of the general social context have been considered. These have been selected out of a number of possible factors and discussed in some detail. A wider range of factors could have been treated in only a superficial way. The three which have been discussed are not necessarily the most important. They are illustrative of the kinds of elements which need careful examination in the process of curriculum building for the secondary school.

The School as a Social System

In the course of the analysis of three selected elements in the general social context, reference was made from time to time to certain aspects of the subculture of youth. An intensive analysis of a number of elements in the subculture would be profitable. However, as in the preceding discussion, selection is being made of one of the aspects with the assumption that the method used in that analysis will be fruitful in looking at other aspects of the subculture.

The tone of much of the writing in recent years, ranging from work by David Riesman to that by writers in slick magazines, suggests that the adolescent is so dominated by his peers that he has lost his individuality and finds meaning only in conforming to the codes of conduct of the gang. Recent empirical evidence from a variety of sources raises serious questions about this point of view. Several studies completed within the past three years reach the same general conclusion, namely, that young people at the secondary school level place family values far ahead of peer values. A large majority think very highly of their parents, would not want them to be greatly different than they are in basic values, and rely on them as a major source of guidance.⁹ It is not implied that peer group values are not important. Some new perspectives in the relative importance of various sources of values for adolescents seem to be coming out of these studies.

Studies will need to be made covering the whole range of social

⁹ Paul H. Landis and Carol L. Stone, *The Relationship of Parental Authority Patterns to Teenage Adjustment*, Bulletin 538, Washington Agricultural Experiment Station, Pullman, Washington, September 1952; and an unpublished report of National Survey of Boys made for the Boy Scouts by the National Opinion Research Council in 1954.

interactions of this group. One of the important areas to examine in this way is the school itself. At this stage in the development of our knowledge we know surprisingly little about the impact of the particular school environment on the youth being served. Our fruitful emphasis on developmental psychology for the adolescent and on the psychology of learning has been accompanied by only relatively few studies in the sociological aspects of education. The consequence is that the patterns of social relations within the school and between the school and the community are based on unexamined assumptions and ad hoc experiences. Since many of these assumptions are subject to empirical investigation, the profession is in a position to extend its knowledge. It is possible that many of our assumptions are essentially sound. On the other hand, we may be achieving good results for reasons which are latent in the situation rather than manifest. For example, schools have always been important in developing attitudes toward human relations. However, for a long time this was a latent function rather than a deliberate or manifest function.

Basic Assumptions of American Schools

What are some of the assumptions upon which our schools in general and our secondary schools in particular are based? An effort at identifying assumptions is given below. These are illustrations of assumptions for which the evidence for or against seems to be inconclusive and on which serious study needs to be made.

1. It is assumed that secondary teachers should function as specialists in one or two fields of knowledge, in contrast to the wide range covered by the elementary teacher. As in college, the student must fit together for himself what he has learned through studying with the highly trained specialist. Even though the teacher will use only a fraction of what he has learned in his major in college, he is not supposed to teach students outside the field in which his certification has been gained.

2. It is further assumed that a number of quite different subjects should be taken at the same time by the student and these should be scheduled over one or more complete semesters. In addition, subjects presumably lend themselves to coverage in units of semesters.

3. Regardless of the nature of the subject being studied it is assumed that the number of class members ought to be within a narrow range in size, usually 25 to 30. Fewer than this is acceptable but this probably means that a bigger school population is needed in order to

provide a larger pool of students from which to draw for the highly specialized subjects.

4. Continuous full-time attendance until graduation is assumed to be the proper course for students. If students ever leave the school for a period of time, it is believed that many will not return. Furthermore, continuity facilitates the sequential development of learning in the subjects being studied. If discontinuity is allowed, students will have to restudy subjects already covered.

5. It is assumed that high standards of expectation and critical appraisal of student performances may create personal and group problems. The exercising of critical judgment with reference to a student's competence may tend to interfere with warm personal relations between teacher and student and to discourage the student when the judgment is negative. Social promotion has been assumed to have positive results.

6. It is assumed that the school should be thought of and conducted as a community even though the areas of activities are limited in scope and the basic sources of authority and sanctions are not in the hands of the students.

7. It is further assumed that there should not be any symbolic recognition of differences between teachers by such devices as titles. While secondary teachers are usually considered to be of higher prestige than elementary teachers, single salary schedules are usually supported by both elementary and secondary teachers and the only status differentiations within the secondary group which are assumed to be relevant are those associated with administrative positions such as department heads or administrative officers.

8. It is frequently assumed that schools are made up of a number of individuals each of whom accepts or rejects the values of the school as an individual. If friendship groups are recognized, they are sometimes thought of negatively as cliques rather than as autonomous groups which may give meaning to the customs and mores of the school.

9. On the other hand, peer groups are assumed to dominate the life of the adolescent with parental values being of minor importance if not rejected altogether.

10. It is assumed that the judgments which adolescents make of each other and which parents make of their children with reference to academic competence, and other school sponsored interests, are of minor importance in comparison with the judgments made by teachers.

11. It is assumed that all students should associate freely with all other students, that differences between students should be minimized, and that egalitarian relations should prevail, even at the cost of freedom of association.

12. It is assumed that a common symbolic representation of completion of a secondary school program—a high school diploma—must be given even if the range of courses taken has been very wide and of quite different kinds and in spite of a major difference in the levels of attainments of students in these subjects. The development of a wide range of levels of educational experiences for students the same age and the use of quite different standards of judgment are usually rejected as both administratively difficult and morally undemocratic. These kinds of differentiation must wait until the first year out of high school when some graduates will go on to college, some will go to work with on-the-job training, some will get married, and some will enter military service.

13. In order to protect the diploma, originally set up to mark the completion of the college preparatory program, it is assumed that work must be done in the school under the supervision of teachers all of whom have been duly certified. Any work out of the school which is accepted for credit such as distributive education must be under some degree of control of one of the certified teachers. Any skill or area of learning outside of that for which subject courses are provided on a semester basis is irrelevant. Personal development achieved through travel, private piano lessons, Boy Scout program, or pursuit of hobbies does not count toward graduation credit.

In presenting this selected list of assumptions, it should again be made clear that many individual teachers and whole school systems may be found operating on either side of the assumptions as stated. This list and any other which might be developed would include a number of assumptions for which the evidence has not been scientifically gathered. While the building of the secondary school curriculum cannot wait until all the needed research has been done, the assumptions on which the program is built should be made explicit and opportunities should be sought to test these assumptions.

Schools as Bureaucracies

As a guide for studying the school culture as one important dimension of the social context in which the adolescent functions, two major approaches are suggested: the study of schools as bureaucratic systems and the study of particular schools as subcultures.

The school is both a formally organized social system and an informally organized one. Its formal aspects can best be described by use of the traditional hierarchy of blocks ranging from the top block—the board of education—through the administrative officers on the next level, to the department heads on the third level, then to the classroom teacher on the fourth level, on to the classes of students on the fifth and final level. This familiar chart, which will also include staff members (guidance, health, etc.) and maintenance and clerical personnel, presumably describes the pattern of social interaction and flow of authority and communication within the social system which we call the school.

This kind of graphic representation is at best a crude picture of what the social relationships are supposed to be. For example, the board of education is legally in the top position. In fact, in many communities, the board is essentially a rubber stamp for the administrator. In other communities, the board assumes a high level of administrative responsibility so that all staff members are in fact directly responsible to the board. According to the formal chart, all classroom teachers appear on the same level. In practice, this is probably never the case. Some teachers have considerable influence in their association with other teachers and with the administration while others have largely a negative influence. Some department heads exercise considerable leadership among their department members while others are ignored as far as possible. Some classroom teachers have more to do with what goes on than do their department heads. Some teachers respond to the leadership of the school administrator and effectively bypass department heads. In a number of cases on record, the custodian is looked to by the classroom teacher as a source of control of students and the principal has little authority. In other cases, the custodian makes the life of the teacher whom he does not like so difficult that the educational program is seriously disrupted.

According to the chart all classrooms are on the same level. The special makeup of particular classes is frequently such that they constantly receive special attention, while others get only limited attention. Some students will exercise considerable influence on the behavior patterns in the school while others are never heard from.

In summary, the network of personal and group interactions which characterize any school system is relatively stable, repetitive and orderly. This network includes not only those relationships which are defined by the line and staff organization with the role behavior thus prescribed, but also a complementary network of relationships based

on personal associations, and interests and values which are considerably broader than the more restricted functions of the school as an educational agency. This informal network may be of more importance than the formal organization in the success or failure of a school system. For example, the struggle for personal power among certain members of the teaching staff may take precedence over the manifest aim of the schools. Of particular importance in the informal structure is the autonomous group made up of individuals whose associations are on the basis of mutual acceptance of each other rather than on the basis of role behavior as called for by the formal organization of the school.

The characteristics of schools as described above have been revealed in studies of factories, business enterprises, hospitals, summer camps and prisons. The results of the studies of bureaucracies in general are believed to apply to schools at a number of essential points:

1. The organizational structure of schools is highly formalized with age-grade classes, and standardized courses of instruction.

2. The role behavior of staff and students is explicitly formulated and the sanctions—both positive and negative—are objectively defined. Individual caprice is not supposed to enter into actions by staff toward students. The teacher is not supposed to like or dislike any one particular student more than another. Students know that they will be rewarded or penalized if they behave in specific ways.

3. The promotion of staff and students is in terms of objectively defined criteria which apply in the same way to all involved. For the teacher, advancement is primarily in terms of number of years of experience, number of years of training completed, and the passing of formal examinations and degrees obtained, rather than judgment of need, merit or friendship. The acceptance of such criteria removes the possibility of personal conflict among teachers which might follow if alternative systems were used.

4. Staff positions and student roles are defined independently of the particular persons who happen to occupy them at any particular point in time. A tenth grade student is expected to have a stated level of competence. A social studies teacher is certified by the state as being equipped to teach and, within limits, should be able to teach any social studies class at that same grade level anywhere in the state and, in general, anywhere in the country. The student, the teacher, or the administrator should be able to move to the corresponding position in another school system and function effectively after a period of orientation.

5. The basic goals of a bureaucracy are much more limited than the range of personal goals of the individuals involved. The conflict between the various life goals of these individuals and their specific functions in the bureaucracy is a normal and continuing problem. The kind of behavior that is functional for the goals of the bureaucracy may not at the same time be functional for the individuals within it. For example, communication in a bureaucracy must be through the regular channels of the organization. An individual's desire for advancement in the system may lead him to seek for opportunities to build personal contacts with persons in positions of higher status in the organization.

6. Persons served by the school as in any other bureaucracy must be treated as equals. Any favoritism shown must be in keeping with the goals of the bureaucracy and not in terms of the personal likes or dislikes of the particular persons involved. The teacher must not have a favorite student and the principal must not give special recognition to a teacher whom he happens to like personally.

Bureaucracy and School Policy

It can be seen from the sketchy analysis above that the school shares with many other organizations in our society many aspects of bureaucracies. What are some of the problems which are associated with this characterization of our schools?

1. The rules of behavior which are designed to promote the goals of the schools become ends in themselves. Adaptation to meet the special circumstances of the individual case becomes difficult, since making exceptions to the rules may endanger the goals for which the rules were made. For example, the deliberate use of grades to help a student who is in need of encouragement may be difficult since this deviates from the objective purpose of grading.

2. The process of recruitment and training of teachers, the continued personal associations on the job, and the loyalty and pride built up in the profession and in the particular school by members of the staff, tend to reduce in-group aggression. This common commitment and the accompanying security built up within the system tend to reduce the responsiveness to pressures from the clientele being served at those points where these demands differ from the plans and goals of the professional. The reference group for the teacher becomes the profession rather than the community or the clientele. This seems to be particularly true for the secondary teacher whose specialized training in a particular subject has developed a set of commitments to

that discipline and to those who share with him the same commitment. Local, state and national organizations of teachers of specific subjects become important guides for conduct for their members. Behavior as a professional worker may be in terms of what is most acceptable to that group rather than the particular local clientele. Recognition by those who are important to the teacher, and movement to a better school or to a position with a higher salary tend to assume a higher level of importance to the teacher than meeting the special demands of students, parents or community groups.

3. The teachers or administrators function as representatives of the school system, and carry the authority of that organization when contacting the public rather than functioning simply as individuals. Educators therefore frequently act or seem to act with a domineering attitude. Since the public has no alternative to the public school, the structure of the situation is such as to make this a natural course of action. There are both positive and negative aspects of such a situation. If the individual always had to act toward the public as an individual, without reference to his position in the school, he would have to spend a great deal of time earning the personal right to be heard. On the other hand, the individual may exploit his position with the organization by demanding and assuming acceptance of his actions by virtue of his identification with the school regardless of the merits of his actions or ideas.

4. The demands of the bureaucratic dimension of the school are such that persons who could function effectively as teacher in another type of situation are not personally happy in the school. Conversely, some persons find security and authority as members of the bureaucratic system and are attracted to it even though they are not primarily interested in teaching.

5. The formalized rules and standards of the bureaucratic system create a structure which is difficult to reconcile with the wide range of personal needs of the students being served. The strength of the bureaucratic elements is such that the individual's needs are generalized and the particular person is either molded to fit the school's program or is physically or psychologically rejected by the system.

As will be pointed out below, individual schools have met the problems listed above with some success. However, the social structure of the school makes these problems always live possibilities. Since the pressure is constantly toward bureaucratization, the problems associated with such a trend can be met only through awareness and continuous effort.

The Individual School as a Special Subculture

In the discussion above, a number of generalizations have been made about the culture of the secondary school. Any particular school will have its own distinctive characteristics as an institution in a specific community. These characteristics will be functions of the particular population composition of the community, the institutional life of that community, the cultural history of the school and the unique responses which the school and the community have made to general social changes of the type discussed earlier. The distinctive combination or conjunction of the kinds of elements listed below may be said to constitute the patterns of cultures of schools. The strength of these patterns is such that new staff or students who enter the school are usually forced to accept them or be rejected by the school.

Schools will differ in the:

1. Degree of authority exercised over the school by the board of education. There may be active interest by the board in some areas, while in others the administrator and his staff are given a relatively free hand.
2. Extent to which parents individually or through organized groups influence policy and operating practices in the school. In some schools, parents are expected to help form policy and in others parents are not encouraged to participate.
3. Degrees of freedom allowed individual staff members or groups of staff members to follow their own approaches to their teaching and other activities.
4. Extent to which the staff participates in basic policy formulation.
5. Relative status which is enjoyed by teachers of certain subjects such as athletics, fine arts or mathematics, and the priority given such areas in budget, personnel and facilities.
6. Status which teachers have in the community.
7. Expectation with reference to ways teachers spend their free time. Is their free time their own or are they expected to teach a Sunday school class, conduct the choir, or lead a Boy Scout troop?
8. Prestige among students of fine arts, athletics, academic activities, extracurricular activities, vocational and commercial programs. Is there a single prestige system or a multiprestige system as a function of competencies in areas such as those listed above as well as of the social structure of the community?

9. Factors which are important in building school spirit such as intra-school activities, activities within the community by groups of students or staff, performance of alumni, and interschool competition in athletics, music or other activities.

10. Extent to which the school program dominates the life of the secondary school students.

11. Patterns of formality or informality in relationship of staff and students and administrators.

As has been pointed out before in the discussion of institutions, the organization of social relationships and their supporting values is such that the elements within the system tend to have a complementary relationship to the whole system. Modifications in part of the system become difficult since this usually involves corresponding changes in other parts of the system. The study of the social organization of a particular school is therefore a matter of considerable importance since understanding this organizational pattern will not only help the staff to understand the behavior of students but will also offer guidance when fundamental changes are being planned. Furthermore, it is important to know the functional interrelationship of the characteristics of the subculture—that is, what contribution each element makes to the whole. This involves attention not only to the commonly accepted, the manifest, functions but also the functions which are not generally recognized, the latent functions. For example, the setting up of an extensive club program facilitates the personal development of students in areas of personal interest. However, it also results in the distribution of students into social groups which correspond in a given way to the social groupings in the community.

In this background statement on the social context within which policies for the secondary school are formed, an effort has been made to define the nature of the relationship between the social context and policy making. Emphasis has been placed on the sociological while recognizing that this is only a part of the total range of factors which have to be taken into account. In looking at the period of adolescence, attention has been called to those factors which are essentially common to the process of moving from babyhood to adulthood and those which are of particular significance for the adolescent. In looking at the social context, four major elements have been considered. Three of these—changes in the status of youth in the general social structure, and in the patterns of communities, and changes in the occupational pattern have been selected from the larger number of factors in the

general society as illustrative of the kinds of factors which need to be considered in curriculum building. The fourth, the social characteristics of the secondary school, has been examined as illustrative of the attention which can fruitfully be given to the number of institutions which serve youth directly.

Two threads have run through the analysis. On the one hand, attention has been called to certain general factors which are common to the whole society and which affect in varying degrees all secondary schools. On the other hand, the unique characteristics of each community and its school have also been emphasized. By viewing the context exclusively from the point of view of the society or of the community, many characteristics will appear out of perspective.

In viewing the dynamic character of individual communities and of the society in general, the study of the social context must be a continuing process. In subsequent sections, additional dimensions of the context will be discussed as other aspects of the theme of the yearbook are considered.

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What Are the High Schools Teaching?

Kenneth Hovet

SINCE THE PUBLICATION of the 1918 statement of the Commission on the Reorganization of Secondary Education, the secondary school has moved steadily in the direction of becoming an integral and recognized part of the American "common school." To state the idea more accurately, the concept of the "common school" now embraces a unified educational program from grade one through grade 12. Furthermore, nursery school and kindergarten are increasingly being placed at the beginning of the program, just as grades 13 and 14 are being increasingly included at the other end. The developments and changes in the high school curriculum seem natural enough when viewed in this context.

Historically, two developments have facilitated the practical mechanics of changing the high school curriculum. The first was the work of the Committee of Ten, which established "the equality" of the school subjects.¹ The second grew out of the recommendations of the Committee on College Entrance Requirements and resulted in the capsulation of courses of study within discrete and convenient Carnegie units.

In a purely mechanical sense, therefore, curriculum change became a matter of selecting a body of "respectable content" and organizing it into a semester's or year's work which would be worthy of one-half or one unit of credit. With the mechanics of curriculum change thus facilitated, lay and professional groups have expended their efforts largely to get proposed new courses "accepted" for inclusion in the

¹ In general, the quotation marks are used in this chapter to indicate terms which are sufficiently lacking in precision of meaning so that various meanings may be read into them.

program of studies. The result has been the generally recognized proliferation of courses and the unceasing struggle with respect to "requirements for graduation."

The curriculum worker is faced with the question of forming some kind of judgment as to whether these developments have been educationally "a good thing." In what sense, for example, are subjects "equal"? If the various committees had been forced to discuss and solve this question, the business of securing some kind of "uniformity of practice" in high schools may have been held up indefinitely. The "equality formula" became a practical device by which a group of individuals with varying interests and beliefs could get on with the business at hand, and this urgent business as the Committee of Ten saw it was the need for uniformity of practice. In a few years the Carnegie unit was invented and became a convenient device for putting the equality formula into school practice.

Uniformity of practice was undoubtedly achieved in that the high schools (a) arranged their programs of studies to conform to the stated college entrance requirements, (b) expressed their graduation requirements as so many units of constant and elective subjects, and (c) formulated their requirements in the language of Carnegie units.

Was this "good"? The developments in school practices over the past fifty years provide an amusing answer. The fact is that school practices have reflected almost universal concern for "respectability-through-uniformity-of-practice" and simultaneously just as universal an ingenuity in "practicing-diversity-nevertheless-respectable." The letter of the Carnegie unit is still with us, but the spirit is diffused throughout hundreds of courses and almost innumerable ways of meeting requirements. School subjects are "equal," for example, in the sense that algebra plus cosmetology may be said to equal two Carnegie units.

A discussion of the subjects now being offered in high schools is only one among many possible approaches that might be employed in arriving at some understanding of what the high schools are teaching. The discussion may in part be justified if it raises questions about the relationship of programs of studies to objectives of education, of a prescribed course of study to actual classroom practices, or of a course taken by a pupil to the behavior patterns he learns. Other approaches might include observations of classes in progress, analyses of the results of testing programs, teachers' reports of what they are doing, appraisals of the work produced by pupils, follow-up studies of pupils after graduation, and the like. The need for investigations and evidence is further suggested by a review of course offerings.

This chapter of the yearbook is consequently concerned primarily with courses included in the programs of studies of American high schools. It is essentially a review of current practices based upon available studies and summaries. It may be of help to those who must deal with the continuing problem of curriculum change, whether in the way of adding and dropping courses, changing the content of present courses or working toward the development of a systematic point of view with respect to "curriculum."²

The purposes of the discussion are as follows:

1. To present a national picture of the general requirements for graduation as these may be determined from the requirements listed by the states
2. To indicate the range and variety of course offerings now appearing in high school programs of studies
3. To suggest trends in the adding or dropping of courses
4. To show variations in the content of a single subject (English) from an examination of several state courses of study
5. To make such interpretations and analyses as the materials presented may suggest.

Requirements for Graduation

Graduation requirements are usually stated in the context of required and elective courses for grades 9-12, the common requirement being 16 Carnegie units. The Carnegie unit continues to be defined as a class period of at least 40 minutes five times each week and continuing for at least 36 weeks. Where laboratory periods are required, as in certain science classes, there are usually three 40-minute periods and two 80-minute periods, or 280 minutes a week. The 60-minute period, or 300 minutes a week, satisfied both the requirement for class time and that for laboratory work.

State requirements for graduation vary widely, with Michigan, for example, having a requirement of one-half unit and Missouri a requirement of eleven.³ Individual schools also vary in their practices with

² The discussion is based on investigations conducted by personnel of the U. S. Office of Education. Particular acknowledgment is due to Ellsworth Tompkins, Arno Jewett, Howard Cummings, Kenneth E. Brown, and to their office staffs, and also to Glenn Blough, formerly of the U. S. Office of Education. Further appreciation is expressed to Dan Hull and to Walter Gaumnitz for the writer's opportunities to participate in conferences conducted by the U. S. Office of Education. A list of references is included at the end of the chapter.

³ The State of Michigan actually prescribes only one-half unit, which happens to be civics, as a requirement for graduation, although pupils carry the normal load of subjects.

respect to (a) the extent to which they meet and exceed state requirements and (b) the ways in which "meeting the requirements" may be interpreted. College entrance requirements influence the curriculum practices of schools. In one state, Colorado, high school accreditation is placed directly under the control of the state university. The determination of "standard practices" is further complicated by the fact that higher institutions and high schools frequently work out mutually acceptable admission standards for graduates of high schools that are developing new or different types of curriculum programs.

Anyone bold enough to hazard a national "norm" with respect to units of required subjects would present a picture about as follows: English, 3 units; social studies, 2 units; mathematics, 1 unit; science, 1 unit; health, 1 unit. This adds up to 8 required Carnegie units of the 16 usually required for graduation from high school.

The practical limits to prescription (i.e., required subjects) would probably be reached if the requirements were as follows: English, 4 units; social studies, 2; mathematics, 2; science, 2; and health, 1. The increase represents one unit respectively in English, mathematics, and science and would make the total requirement 11 out of 16 Carnegie units. The remaining elective area, 5 units, would preserve such subjects as business education and Smith-Hughes vocational subjects from being crowded altogether out of the program of studies. The practical limits to prescription, therefore, represent the "lines of battle" which form when movements for increased prescription develop. The area of struggle at the present time lies between 8 and 11 prescribed units.

Statutory requirements among the various states are met in a variety of ways. Instruction in American history, federal and state constitutions, and state history commonly appears in separate subjects. Health, safety, conservation, and the effects of alcohol, tobacco, or narcotics may be taught in a variety of subjects—science, physical education, health, and social studies. Statutory requirements and enrollments in the area of health-physical education have increased steadily over the past thirty years, although practice varies in including credit among the 16 Carnegie units required for high school graduation.

The whole idea of prescription is in need of study. The need is for studies that will describe the behavior patterns developed among pupils who have undergone the experiences of different kinds of curriculum programs in different kinds of communities. One of the laudable aims of prescription has been that of securing sufficient uniformity of school practices to the end that high school graduates may wisely and intelligently contribute to the preservation of the society in which they

live. The behavior patterns which are desired need to be studied in relation to (a) the contribution of the school, (b) the contributions of different kinds of communities, and (c) the interaction of both upon the behavior patterns developed in pupils.

While prescription has been a common practice for many years, the student of education who examines critically various kinds of investigations and testing programs may legitimately make such statements as the following:

1. There is much similarity between students from "standardized" curriculum programs and those from "individualized" programs.
2. There is much dissimilarity between students from "standardized" curriculum programs and those from "individualized" programs.
3. There is a wide range of differences among students whether they have experienced either "standardized" or "individualized" programs.

A compelling reason for further study of the idea of prescription is to be found in the changes that have occurred over fifty years in the school population. The figures for enrollments of youth aged 14-17 per 100 in the last four years of high school since 1900 are as follows: in 1900, 11; in 1910, 15; in 1920, 32; 1930, 51; in 1940, 73; and in 1950, 75. The youth aged 14-17 who is not in school in 1956 is in a minority group.

Schools have employed several procedures in adapting their programs to this influx of youth. Requirements have been met by teaching students differently in the curriculum programs variously labeled "academic," "vocational," "commercial," or "general." Students have been "grouped homogeneously" in high and low classes so that different standards of evaluation of achievement may be applied. Stress has been placed upon and provision has been made for "remedial work" in the required subjects especially. Promotion policies have recognized "growth" and "social maturity" when students have experienced difficulty in meeting achievement standards. Prescription sometimes is cut to a minimum and students are permitted to elect those courses in which they have some hope of success.

The classroom teacher is the person first responsible in the case of any given pupil for answering the question, What is a requirement and when is it "met"? In difficult cases involving promotion policy, the teacher may confer with the guidance counselor, with the school psychologist, with a committee of teachers, with parents, and with the school principal. Answers as to what is best will vary with personnel, with subjects, with schools, and with states. In spite of the great amount of back-breaking work that has been done to "adjust the school to the pupil, his needs, his interests, and his abilities," more such ad-

justment is on the way; and the limits to which the school should go in its program of adjustment are not yet in sight.

The Range of Course Offerings

The Office of Education has made ten surveys of offerings and enrollments in high school subjects beginning with the year 1889-90. The two most recent surveys are those covering the school years 1933-34 and 1948-49. Some idea of the trend in course offerings can be found in the fact that the 1934 survey included a total of 206 subject titles, whereas the 1949 survey increased this number to 274.

The following statement from the foreword to the 1949 investigation gives the reason for the increase in the list of subject titles: "Mainly, however, the expansion in the list of subjects arises from the recognition by today's schools that the more or less standard college-preparatory curriculum of the past is no longer adequate for all pupils; and that a richly varied curricular offering is essential to meet the varied needs of today's high school pupils."

For purposes of rough comparison, we may observe that the increase in course offerings came during a period when pupils were entering high school at a rate of around 2,000,000 a year. Before long, however, the rate will be about 4,000,000 a year. If there is a relationship between the number of course offerings and the size of school enrollments, the next surveys, presumably those of 1958-59 and 1968-69, may reveal with respect to school offerings that "there is no end in sight." The difficulty is that at the present time nobody can state just what should be used as evidence to determine what, if any "given end" should or could be within what "given sight."

The course offerings listed in the 1949 survey are classified into 14 main subject areas. Each area, in turn, includes courses which are commonly offered in the various states and courses which are less commonly offered. The "common courses" are those offered in more than 15 states. English as a subject area, for example, has a range of 24 courses that are "common" and 37 additional courses which are "uncommon." The picture of all course offerings for grades 7-12 is as follows:

<i>Subject Area</i>	<i>Common</i>	<i>Uncommon</i>
English	24	37
Social Studies	32	66
Science	28	48
Mathematics	14	25
Foreign Languages	35	35

<i>Subject Area (Continued)</i>	<i>Common</i>	<i>Uncommon</i>
Industrial Arts—non-Vocational	22	78
Trade and Industrial Education	38	59
Business	25	58
Home Economics	20	39
Agriculture	5	..
Health, Safety, and Physical Education	6	9
Music	9	18
Art	10	33
Other instruction or courses	6	13
Totals	274	518

Since the table contains an uncertain amount of overlapping and duplication, we cannot make the statement that American high schools are offering 792 (274 plus 518) different courses! The area of uncertainty lies between the 274 commonly offered courses and the 518 more uncommon courses. A fair estimate might be that American high schools are now offering somewhere in the neighborhood of 500 discernibly different courses. The difficulty of determining when courses differ from each other is complicated, therefore, in the following ways:

1. Some "old" courses may have "old" content.
2. Some "old" courses may have "new" content.
3. Some "new" courses may have "old" content.
4. Some "new" courses may have "new" content.

The difficulty of sound estimates is further complicated by differences of opinion as to the meaning of "content." Just how is a given course made different in "content" when the emphasis is shifted from "facts" to "activities"? Or from "subject matter" to "experiences"? What happens to the pupil and how is he made different in either case? Although research turns up a new lead here or there, much remains to be done to find out just what does happen to the adolescent because he goes to high school.

The list which follows represents an attempt to indicate new courses which have been developed in the past twenty years. While most of the courses are genuine additions, a few may represent either a change of name or they may appear under simply a new classification. Some are new only in the sense that they were previously reported by few states, whereas they are now reported by a considerably larger number. Finally, certain activities which formerly were termed as extra-curricular have become elective courses in the program of studies.

1. English—radio speaking and broadcasting, debate, remedial English, and creative writing
2. Social Studies—Latin-American history, consumer education, orientation (home living, social living, problems in living, group guidance)
3. Core—English and social studies, sometimes with science and art
4. Science—conservation, fundamentals of electricity, advanced general science, advanced biology, advanced chemistry, aeronautics, earth science
5. Mathematics—mathematics review
6. Foreign Languages—Russian, Portuguese
7. Industrial Arts—photography, home mechanics, handicrafts, plastics, transportation laboratory
8. Trade and Industrial—general industrial shops, diversified occupations, vocational radio, aviation trades, cosmetology
9. Business Education—cooperative store training, cooperative office training, retailing, consumer economics
10. Home Economics—consumer buying, home management
11. Agriculture—the various offerings are listed as Agriculture I, II, III, IV although the content undergoes change
12. Health, Safety, and Physical Education—safety and driver education
13. Music—music appreciation, harmony, theory and practice
14. Art—school service art
15. Other instruction—student service (student leadership, student government), special classes for the handicapped and mentally retarded.

Even though times change and the world moves on, subjects which have achieved the status of being commonly taught (reported by at least 15 states) do not disappear as rapidly as one might think. Subjects disappearing between 1934 and 1949 were English history, industrial history, nature study, the novel, and short story. While these disappear as separately organized subjects, the content in considerable part appears again in other subjects which have taken their places. Even Greek was taught in eight states in 1934 and in five states in 1949. During the same period, such a well established subject as Latin finally gave way to Spanish in the number of pupils enrolled. Over a period of forty years, botany and zoology gave way to biology, and ancient, medieval, and modern history became world history. The national picture, however, shows all of the courses as continuing elements in the program of studies, although certain individual schools, for example, may have dropped both zoology and botany in favor of biology. At the same time, a large comprehensive high school could offer between 400 and 500 individual courses.

These groupings and regroupings of subjects and courses occur over the years, but through some quaint perversity the *total number* of

courses nevertheless increases. Some students of the curriculum believe that discoveries, technological advances, and continual additions to knowledge make these increases in courses inevitable. Others point to the complexity of modern life, a world of rapid change, and the resulting demands upon the school. The explanation that the school is simply adjusting to a great influx of students of widely varying abilities makes an uncertain amount of sense but not a sufficient or a satisfactory amount.

The school does not "adjust out of thin air," even though certain critics may seem to have made this their case. The resources employed by schools to adjust and adapt their programs do not reside in the pupils, nor in their whims, nor in their caprices; the pupils simply create the occasion which makes the need to adjust more evident. The only adjustment resources open to schools reside precisely in the resources of the culture at that time, in the knowledges, technologies, ideals and beliefs, and fine or practical arts which are available.

A great many of these resources are available at any period of time, many more, surely, than schools are able to use. The content for school courses is selected by both lay and professional personnel from this vast array of resources for inclusion in the school program. The key to an understanding of the increasing multiplicity of courses is to be found in the methods employed for selecting content.

There is a good reason to believe, as Cremin points out in Chapter I, that the methods for selecting the content of school courses changed sharply from 1893 to 1918. The occasion for the change—whether advances in knowledge, a rapidly changing world, increased secondary enrollment, or whatever—cannot be considered a sufficient explanation for the change in methods of selecting content. The explanation lies closer to certain statements expressed by Professor Courtis of Michigan some thirty years ago when he suggested that to change the school curriculum is to change the course of civilization.

For centuries the chief method of selecting the content of school courses was that of choosing what-was-to-be-learned from those resources fairly closely related to the scholarly disciplines. This method is represented historically in the demands of those who have wanted schools to teach courses having an "intellectual content." It expresses itself in many secondary courses of today and to an increasing degree in college and graduate courses, wherever there are "logically organized bodies of subject matter."

The parallel method, developing especially after 1900, was that of choosing what-was-to-be-learned from the resources of practical arts

available in the culture itself. Historically this method is represented in the demands of those who have wanted schools to be "practical-functional." It is expressed today in all those courses which are organized on an "activity-experience" basis.

Controversy, of course, continues. On the one side, the "strictly academic" type of program is deemed the "solidly intellectual" and the "activity-experience" courses the "socially anti-intellectual." On the other, it is held that the "activity-experience" program leads to "real and permanent learning" and the "strictly academic" merely to "cold-storage knowledge." On both sides the value judgments expressed are uninformed to a degree not specifiable at the present time by knowledge available from research. The student of curriculum problems could probably find at least something labeled a "study" to support every course now being taught in secondary schools.

If the kind of school program in operation has any observable effect upon the future development of American society, some better methods of selecting content will be needed than those based upon value commitments insufficiently *informed* to guide practical choices. The only long-run criterion available would seem to be that of national survival, and the one resource available for informing judgments is knowledge from research. It is not enough, therefore, that research be so conducted as to "justify" a given program which a given group considers "good." The formidable task for research is that of relating the kinds of school programs in operation to the kinds of competencies or behavior patterns being produced in pupils. The value judgments and choices that Americans make with respect to "needed programs" and "needed competencies" will not be reflected in "who won" or "who was right" but, more portentously, in their effects upon national survival.

In the meantime, courses multiply in the secondary school, and almost anything considered "good" by some group can eventually become a part of the program of studies. Once the secondary school departed from the scholarly disciplines as its chief source of course content, the resources available became as broad as the culture. Any course can be introduced as long as its advocates are able to show how it "contributes" to the achievement of some one or several of the objectives that have been stated since 1918. If no stated objective is available, a new one can be formulated and advocated with vigor. There are no readily discernible limits to a process like this. There are limits of a different kind, such as the number of courses a given school may offer and the ways in which certain requirements may be met.

Meeting Requirements for High School Graduation

This section is a discussion of those subjects commonly listed in the language of the Carnegie units required for graduation, namely, English, social studies, science, and mathematics. Subjects like physical education and health, while generally required, are variously included among the 16 units needed for graduation and are not necessarily stated in the language of Carnegie units. The main purpose of the discussion is to show the variety of ways in which requirements may be met.

Social Studies

As previously stated, the Office of Education reports that there are 32 commonly offered courses in the social studies and 66 less commonly offered. The greatest variation in course offerings occurs in grades 7-8-9 and in grade 12. World history seems to be a fairly "standard subject" for grade 10 and American history for grade 11. From a number of surveys, we can place together the offerings in grades 7-12:

- Grade 7 and 8—U.S. history, world history, state history, ancient and medieval history, Latin-American history, modern European history, industrial history and geography, world geography, American geography, community civics, citizenship, orientation (home living, everyday-living, problems in living, social living)
- Grade 9—Civics, citizenship, commercial geography, orientation, state history, Christian doctrine, social science, social studies, community civics, occupations, ancient and medieval history, social problems, United States history, and others
- Grade 10—World history (old world history and geography, state and world background, economic world history, academic world history, general history), world geography, European history, physiography, world of culture, social living, world affairs
- Grade 11—American history, modern Europe, Pan-American history, ancient civilization, conservation, commercial law
- Grade 12—Problems of democracy, economics, American government, civics, sociology, national government and international relations, social and economic problems, American government and economic problems, American and world problems, international relations, modern Europe, world governments, world problems, psychology, Latin America, modern problems, human relations, distributive education, and others.

Students in grades 7-8-9 usually have a course each year that is classified as social studies, although promotion to the next grade is not necessarily based upon the completion of specific Carnegie units in grade 7 or 8. The pupil may be "passed" upon the basis of his general

growth and development and his social maturity, or he may simply be placed in the grade in which he best fits. In grade 9, however, the Carnegie unit requirement (16 units in grades 9-12) may come into operation in the application of requirements for any one of the several curriculums—academic, vocational, general, or commercial—in which the particular pupil is progressing, the result being that grade 9 often becomes crucial in relation to the future prospects of pupils. In grades 10-11-12 the usual requirement is 2 Carnegie units in social studies, and many students reach grade 12 with their only remaining requirement being twelfth grade English.

The broad objective of the teaching of social studies is "education for good citizenship," and the emphasis is upon the social-civic understandings and competencies needed for effective participation in modern society. One of the many problems in the field is the extent to which pupils learn "merely verbal" patterns of behavior to the exclusion of other behavior patterns deemed socially important, or the extent to which other behavior patterns are learned to the exclusion of verbal behavior deemed socially important. There is, further, the profoundly difficult problem of the relationship between verbal behavior and whatever is called "excellence" or "scholarship." This relationship is a formidable unknown which research must eventually untangle if objectives are to be formulated clearly and meaningfully to the end that social studies teaching may have the social effects desired.

The social studies exemplify sharply the parallel groups of courses resulting from a selection of content (a) primarily from the resources of the scholarly disciplines and (b) primarily from the resources of the culture as a whole. The "strictly academic" and the "activity-experience" courses parallel each other in the program with varied emphases of each kind of content in both types of courses. In the one case the emphasis is upon "the mastery of subject matter" with a variable amount of "activities-experiences-problems-projects" included. In the other the emphasis is upon "activities-experiences-problems-projects" with a variable "mastery of subject matter" included. The field reveals a basic difference in thinking between those who would produce a discernible pattern of mostly verbal behavior frequently recognizable as "scholarship" by systematic teaching of a specific body of content organized into a specific course, and those who would select certain "activities-experiences-problems-projects" called "general content" and teach for those behavior patterns that go under the name of "good citizenship." That which is selected as "evidence from research" can be adduced to support both points of view.

English

The Office of Education lists 24 courses in English as commonly offered and 37 as less commonly offered. The "standard" offerings, those courses taken by most students, go under the name of each grade, such as seventh-grade English and continuing through twelfth-grade English. From grade 7 through 11, practically all students are enrolled in the "regular" English classes. In grade 12, where English may be optional, nevertheless about 80 percent of the students are in the regular English classes.

The common requirement among the 48 states is 3 Carnegie units in grades 9-12, although more students graduate with 4. The degree of option for each grade, 9-10-11-12, can be seen by comparing the total enrollment for that grade with the total enrollment in the regular English classes. The following table shows the greatest variation to be in grade 12:

	<i>Grade Enrollment</i>	<i>Regular English Classes</i>
Grade 9	1,641,406	1,564,358
Grade 10	1,490,628	1,397,234
Grade 11	1,241,505	1,187,868
Grade 12	1,025,913	836,483

The choices expressed by students are reflected primarily in the enrollments in speech and public speaking, journalism, and dramatic arts, and the trend in school practice is to offer each of these for a full year. Creative writing, radio speaking and broadcasting, and perhaps debate may be expected to enroll an increasing number of students. Work in "remedial reading" and "remedial English" appears in all grades, 7-12, whether by student choice or teacher direction. While remedial English of many varieties is being emphasized in high schools, the 1948-49 survey revealed only one-half of one percent of all secondary pupils to be enrolled in classes set up specifically for remedial instruction.

A class in dramatic art may include the production of school plays, and a class in journalism may work on the school annual and other publications. The following list shows the further variety of English offerings, the less commonly offered courses being placed in the parentheses: world literature (literature, classics, fiction, free reading, history of literature); American literature; English literature; current literature; Bible (Old Testament, New Testament, Church history, junior seminary); college-preparatory English; grammar (review of grammar, rhetoric); remedial English (developmental or remedial general English, corrective English, language skills, practical English,

problems in written and oral expression, general language, English review, scholarship review, remedial reading, remedial speech, speech clinic); penmanship; English for foreigners; and library training and word study.

State Courses of Study in English⁴

Courses of study in English are issued by the states, by counties within the states, by school districts within counties, and by many cities. As a field, English reveals all of the variety that comes with the selection of course content on the basis of the activity-experience approach. In grades 7-8-9 English is as varied as other general subjects, such as social studies or general science. For grades 10-11-12, the more typical offerings are world literature, American literature, and English literature, together with the usual work in writing, speaking and listening.

The New Jersey course of study simply states, "Each school system in New Jersey has the responsibility of prescribing its own course of study." Even so, the State Department reports more time as having been spent on the preparation of this particular bulletin than on any other in recent years. Basic objectives are stated for (a) the over-all goals of the program, (b) listening, (c) speaking, (d) reading, (e) writing and (f) correct usage. The general approach is to develop language skills through pupil activities that involve the use of language. While the bulletin presents the goals of an effective program in the language arts and offers a great many suggestions for their attainment, the actual construction and prescription of courses of study are left to the individual school districts.

The Virginia bulletin lists the four main areas as listening, speaking, reading, and writing. Listening and speaking are viewed as continuing and developmental processes, and no grade placement of objectives or content is made for either. For reading and writing, however, the bulletin lists objectives, activities, and desired pupil attainments for each year of the high school, grades 8-12. A major section is entitled "Implementing the Language Arts Program," which lists in detail (a) pupil activities, (b) outcomes and (c) materials (books, charts, magazines, films, pamphlets, and maps). The main topics, or units, assigned to each grade in the Virginia bulletin are as follows:

⁴ The courses were selected for discussion here because they were available, recent, and sufficient for illustrating a variety of practices.

- Grade 8—We Look at Ourselves—Planning for the Future
 - We Look at Our School—Exploration and Orientation
 - We Look at Our Community
- Grade 9—Adventure
 - The Imaginative
 - Fun Activities
 - The World of Science
- Grade 10—Vocational Opportunities
 - Getting Along with Others—Boy-Girl Relationships
 - Getting Along with Others—Pleasing Personality
- Grade 11—Leisure Time Activities—Radio and Television
 - Family Relationships
 - Aesthetic Experiences
 - School and Community Responsibilities
- Grade 12—Improving Human Relations by Understanding Self
 - Improving Human Relations by Understanding Others
 - Improving Human Relations by Understanding One's Heritage
 - Planning for the Future.

The 1952 Pennsylvania bulletin devotes a discussion with a multitude of suggestions for teachers, to each of the following areas of English: (a) listening and observing, (b) speaking, (c) writing, (d) reading and (e) literature. Two paragraphs from the chapter on the teaching of literature are illustrative of the emphasis upon pupil needs throughout the program.

There are many approaches to the study of literature. Among those commonly used are the analytical approach, the type approach, the chronological and literary history approach, the theme, the idea or subject approach, the personal and social needs approach, the problem approach, the language or literary quality approach, and the approach which combines two or more specialized approaches. Each is subject to an intensive or an extensive treatment.

It cannot be said that any one of these approaches offers the best or most effective means of meeting pupil needs. Each offers some advantages and carries some limitations (italics in the text). The experience, the problem, and the interest approaches, however, are becoming more widely used and more highly recommended.

In Chapter III, "Scope and Sequence," some ten topics for each grade 7-12, are suggested around which to organize pupil activities and to develop units of instruction. These topics cover a very wide range and are presumably representative of the needs and interests of pupils. Certain topics appear to be subject matters to be studied for their own sake, but others seem to be vehicles by which various objectives in the language arts may be attained.

The Iowa bulletins are both specific and directive to teachers with respect to what shall be taught and what units shall be included.

The courses of study for grades 9-10 and 11-12 may be characterized in a few statements as follows:

1. Specific units are assigned to be taught in each grade with a time allotment stated in days.
2. The two main areas in each unit are English and Speech, which are detailed for each unit to parallel each other.
3. Specific suggestions to the teacher for the work to be done in the respective units are given, suggestions for reading, writing, speaking, listening, grammar and usage.
4. Certain pupil activities for the various units are listed as "basic" and others as "optional."
5. A literature anthology is recommended for each student plus 5 copies of each of 5 different anthologies for the classroom.

The scope and sequence and the time allotments for grades 9-10-11-12 follows:

First Semester

Grade 9—1. Adjusting to high school life and work	6 days
2. Discovering the importance of an ability to communicate	8
3. Improving our personalities	12
4. Learning appropriate usage (taught as needed in all units)	15
5. Learning the techniques of informal conversation and informal narrative writing	14
6. Learning to speak clearly and pleasantly	15
7. Improving ability to communicate	17
	<hr/>
	87 days

Second Semester

8. Improving ability to communicate	31
9. Learning appropriate usage (taught as needed in all units)	15
10. Learning how to receive communication	15
11. Adjusting communications to the hearers	3
12. Learning how to organize written and oral communications	30
	<hr/>
	94 days

Grade 10—Outlined in detail as in grade 9

Grade 11—American literature (by themes or by types)

Grade 12—English literature (first semester)

Language in contemporary life (second semester)

The Alabama bulletin builds the English program around four main areas, namely: reading, speaking and listening, writing experi-

ences, and grammar (which includes punctuation). Some of the characteristics of the bulletin may be expressed as follows:

1. There is no rigid grade placement of either materials or minimum standards, but a general framework for each grade is presented.
2. Specific goals and objectives in the language arts are offered for all grades, 7-12.
3. The student begins to keep a reading record in grade 7 and continues with it through high school.
4. Literary types are not to be studied as such in junior high school, but all types are to be introduced.
5. In grades 7-8-9-10 literary selections are to be arranged by themes around student experiences, the selections to be "of literary merit" representing the "best literature of the past."
6. The literature for grade 11 is American, and the other work is built around speaking and listening, writing, and grammar.
7. Grade 12 has two course offerings, A and B. Course A is for the general student. Course B is college preparatory and includes more formal study and creative writing plus the preparation of a research paper.

This brief and incomplete description of a few courses of study may suffice to illustrate the vast and extensive efforts of English teachers to adjust school work to the wide range of individual and trait differences among pupils. As a field, English is beset with the same difficulties that characterize the academic subjects commonly required—social studies, science, and mathematics. The problem is not so much "What shall we teach?" as "What can we teach that students can learn?"

The curriculum student can find much agreement over the country on the objectives for reading, writing, listening and speaking. These four areas constitute the basic content for the regular English classes in which most high school pupils are enrolled. Much of the variation that occurs in content may have its origin in the two following sources:

1. Reading, writing, listening and speaking are recognized as continuing processes in the school career of each pupil. These processes grow and develop at differential rates among pupils, and no "standard rate" can be set for individual development. Available norms may at best serve as guides to the teacher. In each class or grade, therefore, the teacher must adjust what-is-to-be-learned to the reading-writing-speaking-listening level which the individual has attained. Furthermore, each class or grade contains pupils whose "process

growth" varies normally for each pupil within a range several grade levels below and above the level for that particular grade.

2. Content is selected on the basis of the "activity-experience" approach. Since many kinds of activities-experiences may presumably contribute to pupil growth in reading-writing-listening-speaking, no particular activity-experience can necessarily be assigned as best for any one class or grade. Content norms may and do serve as guides to the teacher, but each school must be free to experiment with different experiences-activities. In most schools, at least some students will reach a reading-writing-listening-speaking level of development at which the experience-activity best suited for them will be in the form of an organized, systematically-taught subject.

In this way, English, perhaps more than any other required academic subject, has made its "escape" from the Committee-of-Ten type of organized content over to the experience-activity kind of content without necessarily relinquishing the idea of "academic scholarship." The transition represents a moving away from subject-matter-set-out-to-be-learned toward an acceptance of the *behavior processes* that the teaching of English is expected to develop.

The many courses of study being produced reflect the confusion in the field of English as teaching has moved from organized content to activity-experience. Hundreds of topics are suggested as worth while for development into units in grades 7-12. The variety and range of topics are so great that no clear answer can be given to the question, "What is English?" Some courses of study for senior high school represent organized content, and others represent activities-experiences geared to pupil interests, needs, and abilities. Some courses are combinations of both. Even in grammar, there is the division between teachers who prefer "old-fashioned grammar" and those who follow, for example, the teachings of "the Michigan school." In some respects, therefore, English is "what English teachers teach."

Content in the form of topics to be developed into activity-experience units would seem to have been produced faster than knowledge of the relationship of such content to the processes, reading-writing-speaking-listening. Obviously, thousands of human activities involve the four processes, and the selection of these activities may be informed by knowledge of the needs, interests, and abilities of pupils. English teaching, however, is more than merely to encourage and develop the processes. The further goal is that the teaching of English may inform the behaviors which the processes name. Behavior can be induced and maintained, but behavior as far as we know is informed only by

knowledge. What systematic knowledge does is represented in the difference between the behavior of the uninformed "primitive" and that of the informed "artist," and the behavior of the primitive becomes "delightful" when the knowledge informing the artists becomes "stuff." Nevertheless, many an English teacher is disturbed by the criticism that the schools are turning out too many "uninformed primitives" and not enough "informed artists."

Knowledge informs the reading-writing-speaking-listening behavior of the pupil in two basic ways: (a) It enables him to see the "geography of the field" in which his choices can be made. (b) It enables him to see the possible effects of the choices he may make. The informed teacher of "old-fashioned grammar" taught precisely in this way, and largely for the reason that the process worked in his own behavior choices! Such a teacher may properly feel uneasy with an approach that seems to emphasize activity-experience for its own sake.

On the other hand, little is to be gained by wholesale criticism of the activity-experience approach just because there are multitudinous activities. Sound criticism ought to suggest needed research. Accepting the four processes tentatively as representative of the behaviors in the language arts, we might suggest that research be directed toward (a) determining the extent to which pupils of varying ability can actually become informed about their verbal-behavior choices and (b) discovering the best ways in which to make them so informed. If pessimistic judgment evaluates this range of pupil behavior as extending from the "savagely primitive" to the "pedantically arty," perhaps hopeful research may see it as ranging from the primitively simple to the artistically complex.

What happens when the teaching of English "goes sour" in the eyes of a critical public? The following statements may be suggestive:

1. Teachers have not maintained a steady emphasis on the reading-writing-listening-speaking processes. Activities-experiences may be so selected as to point primarily toward "emotional adjustment" or "personality development" in some vaguely defined way and bear a questionable relationship to that which English teaching is expected to be about. If reading-writing-speaking-listening are the basic processes, then teaching for personal-social adjustment can be justified only to the extent that it is the demonstrably known condition under which growth in the four processes occurs. Research has done little more than scratch the surface in this area.

2. Teachers have not felt secure about maintaining "standards"

and "ideals of scholarship" because of the disrepute of "subject-matter-set-out-to-be-learned." The idea that "activities-experiences" lead to learning is commonly accepted, but the idea grows that few or no students ever reach a level of development at which their experiences-activities may either be in the form of or even lead to a thorough knowledge and understanding of a systematically organized body of subject matter. Teachers need only recall what they have long known, namely, that, while activities-experiences are *conditions* under which growth in reading-writing-speaking-listening occurs, at the same time pupil growth in knowledge and understanding of both order and form are *standard criteria* for evaluating the level which that growth has attained.

Science

In grades 9-12 the common science requirement is one Carnegie unit, which in practice is most frequently met through ninth-grade general science. If the requirement is two units, as for students in the "academic curriculum," the additional unit is most frequently tenth-grade biology. Keeping accuracy of statement within a range of a few percentage points, we can say that about two-thirds of all students in grades 7-8-9 take general science and two-thirds of those in grade 10 take biology. The common subjects in grades 11-12 are chemistry and physics, but the combined enrollment in these two drops to about one-third of the students in these grades.

The variety of science offerings in American high schools, however, includes 28 commonly offered subjects and 48 less commonly offered. The expansion of course offerings has occurred primarily in grades 10-11-12. In these grades, therefore, we find students enrolled in subjects such as the following:

- Botany, physiology, and zoology
- Earth Science—geology, astronomy, agronomy, physical geography, physiography, meteorology, mineralogy, agricultural science, mining
- Aeronautics—preflight, science of aeronautics, fundamentals of aviation, aviation physics, aviation mathematics
- Advanced General Science—generalized science, consumer science, senior science, science survey, applied science, basic science, practical science, modern science, industrial science, girls' science, descriptive science, popular science
- Advanced chemistry, physics, and biology
- Fundamentals of electricity, fundamentals of machines, radio including electronics, laboratory techniques, metallurgy, conservation
- Applied Biology—social biology, prenatal education, genetics, eugenics

Related Science—related chemistry, related biology, home science, home mechanics, household chemistry, horticulture, forestry, greenhouse practice.

New subjects, or subjects receiving a new emphasis, are conservation, fundamentals of electricity, advanced general science, advanced biology, and advanced chemistry. Aeronautics has moved from industrial arts over into science. Nature study is practically "out," though much of the material may be included in other areas of science. Astronomy, geology, and physical geography appear to have declined in enrollment and are now classified under earth science, just as physiology, botany, and zoology have given way to the more general teaching of biology.

With the great need for trained scientists a pressing problem, much concern has been expressed over enrollments in chemistry and physics. Since 1900 enrollments in chemistry have been steadily about 7 percent of the students in high school, resulting in a substantial increase in actual numbers each year. During the same period, the percentage of students enrolled in physics steadily dropped, even though there was an increase in actual numbers. From 1890 to 1915, about twice as many students were enrolled in physics as in chemistry. In 1928 enrollments in each were just about even, 204,000 in chemistry and 198,000 in physics. But in 1949 there were 412,000 enrolled in chemistry and 291,000 in physics.

Mathematics⁵

The common requirement for graduation is 1 Carnegie unit in mathematics, which is usually completed in the ninth grade. About 60 percent of the students take algebra and 40 percent general mathematics. For college-preparatory students, those in the academic curriculum, an estimated three-fourths of the high schools require algebra and geometry. The surveys indicate that about 80 percent of the students in grades 7-8 are in arithmetic and 20 percent in general mathematics.

The 1949 survey listed 14 mathematics courses offered and 25 less commonly offered. The standard courses together with some of the variations may be listed as follows:

Elementary algebra, intermediate algebra, advanced or college algebra
Plane geometry, solid geometry, trigonometry, analytics, calculus

General Mathematics—mathematics, essentials, basic mathematics, developmental mathematics, high school mathematics, everyday mathematics, arithmetic, practical mathematics

⁵ The data reported in the discussion are from the survey of 1949 and the survey by Brown for the school year 1952-53.

Advanced General Mathematics—college board mathematics, senior mathematics, gamma mathematics.

Mathematics Review—review of academic mathematics, algebra review, geometry review, arithmetic review, socialized high school arithmetic, remedial mathematics

Other mathematics—navigation, slide rule, surveying, civil engineering, general or applied geometry, mathematics unspecified.

According to the 1952-53 survey, about one-third of the tenth grade pupils were enrolled in geometry, about one-fourth of eleventh grade pupils in intermediate algebra, and about one-tenth of twelfth grade pupils in mathematics. Brown expresses the concern felt by many with respect to enrollments in the various courses in mathematics:

The enrollments in mathematics necessary for the development of technical personnel showed little, if any, increase. The improvement of our standard of living and national defense depends upon an increased supply of technical personnel. A knowledge of mathematics is a primary prerequisite to success in many technical areas. If the national supply of engineers, scientists, and technicians is to be increased, it will be necessary for more boys and girls in high school to have experiences in mathematics.

Surveys of enrollments in algebra from 1890 to 1910 showed an increase in both percentages and numbers of students. In 1915 the percentage began to decline, and the drop has continued to the present time, but the actual number of students enrolled has increased each year. In geometry, both percentage and number increased to 1910, percentage decreased while number increased to 1934, and in the past twenty years both percentage and number of students have decreased. Trigonometry experienced a percentage decrease from 1900 to 1934 while number enrolled increased, but there was a substantial increase in both percentage and number enrolled in 1949.

Science and mathematics as required subjects are obviously "in the same boat" with English and social studies. Traditional organizations of subject matter run parallel with "generalizations" of traditional subject matter. Many schools have a "double-track" system in which students can enroll in accordance with their interests and abilities, such as ninth-grade general math and algebra and eleventh-grade advanced general science and chemistry. In spite of these many "generalizations" and "adaptations," the pressing national problem in both fields is to encourage enough students to continue their studies so as to fill important positions in research and technology. In view of the manifest need, it seems almost incredible that less than half of American senior high schools offer either chemistry or physics or both.

For fifty years the activity-experience approach has influenced the teaching of science and mathematics away from "what is in the book"

toward an application of principles and concepts "to the practical problems of everyday living." In all courses that can be labeled "general," such as the many varieties of general science and mathematics, this would seem to have been a wholesome development. In those courses which can be labeled "scholarly disciplines," such as geometry, trigonometry, chemistry, and physics, for example, the activity-experience approach with its concern for the problems of everyday living would seem to have neglected some fundamental considerations.

Mathematics can undoubtedly be taught through activities-experiences so that pupils will learn to make applications to many everyday problems. These applications are sometimes known as "the social meanings of arithmetic," and few persons would argue that these meanings and pupil competencies are socially unimportant. The teaching of these competencies is the primary concern of general courses.

Such activities-experiences, however, do not exhaust *all* of the "experiences in mathematics" that pupils are able to have. Mathematics can be taught as a system of verbal behavior in which "activities" are operations with symbols having specified kinds of logical relationships to each other and in which "experiences" are primarily of the kind called "cognitive" or "intellectual." The student learns to make "applications of mathematics" in the form of symbolic representation of hypothetical events which may bear no necessary relationship whatsoever to problems of everyday living. He learns to "act symbolically" without "acting overtly," in the manner of the experimental scientist who first formulates possibilities logically (which is usually mathematically) and then runs his experimental tests. These are the competencies needed for the maintenance of research and technology. Such competencies are just as "practical" for the problems of research and technology as other "practical arts" are for the problems of everyday living.

Similar statements would apply to chemistry, which involves behavior unique to chemistry as a research discipline. Chemistry has its own field of phenomena or subject matter to be investigated; it has its own methods of making these investigations; it has its own language for "talking about" its own work; and it has its own methods of conceiving problems requiring investigation. All of these are "ways of behaving" which can be learned by students who wish to learn how a chemist behaves when he looks at life, investigates life, and talks about what he is doing.

The same kinds of statements apply to the teaching of all those courses which can be called research or scholarly disciplines. Each discipline is in need of thorough analysis to identify the "ways of

behaving" it includes. Once identified, these "ways of behaving" can be taught to students, and a clear distinction can be made between such ways of behaving and the behaviors a student learns in general courses.

The ancient demon, "requirements for graduation," may be a formidable obstacle to the teaching of any research discipline as representing identifiable and teachable ways of behaving. If *all* students must have a Carnegie unit of credit in a given course, then obviously many students will be in that course who are unable to learn the ways of behaving which the course represents. The inevitable consequence over a period of many years has been the "adaptation, enrichment, and adjustment" which many courses have undergone. All of this has been in large measure the basis for the charge of "anti-intellectualism" which critics have hurled at the schools. At the same time, evidence from research on the range of individual differences alone is more than enough to show the error of critics who insist that all pupils should be subjected to the learning of those ways of behaving represented in courses taught as scholarly disciplines.

Health, Safety and Physical Education

The 1949 survey reports that "physical education as an individual subject has grown more remarkably than any other reported in the historical table." At that time it enrolled 70 percent of all pupils in grades 9-10-11-12. The main subdivisions in the field are physical education, health, hygiene, safety, driver education, and military drill.

If credit is stated in the language of Carnegie units, it is usually one-fourth of a unit each year for four years in health-physical education. Whether or not schools include credit among the 16 units commonly required for graduation, the requirement in health-physical education is almost universal, and the trend is probably to include it.

As a field, physical education is in the same fortunate position as, for example, industrial arts. The aims and objectives of both fields are "general," and the resources for course content include the whole range of practical arts available in the culture. It is altogether reasonable, therefore, to expect that physical education offerings may increase over the years in both number and variety, the basic criterion being the contribution of any selected cultural art to the objectives of the program.

It seems futile to argue that a student should not receive as credit "one-fourth Carnegie unit in archery." If archery is an acceptable

cultural art, then it may surely be selected to make its proper contribution to the objectives of physical education. As long as educational accounting is written in the language of Carnegie units, some peculiar statements are likely to occur; and the reasoning that would give credit to one cultural art and deny it to another is at best obscure.

Electives

Since the common requirement for the country as a whole is 8 Carnegie units in specified subject areas, students may elect to work out 8 or more units from hundreds of offerings. In the most recent national survey, they make their choices among the following courses: foreign language, 70 courses; industrial arts, 100; trade and industrial, 97; business, 83; home economics, 59; agriculture, 5; music, 27; art, 43; and a miscellaneous group of 19 courses.

Some of the main restrictions to a completely free choice of subjects may be enumerated as follows: (a) graduation requirements in the various programs: academic, vocational, commercial, and general; (b) the requirement of course continuity in such fields as industrial or business education; (c) the number of course offerings of any given school; and (d) the number of hours in the school week.

Most of the elective subjects are courses representing selections of ways of behaving from the vast array of practical-cultural arts, and each subject could be analyzed for the purpose of identifying the ways of behaving which it represents. Space permits only a few suggestive comments. In music, for example, a course in theory represents behaviors which are different both in kind and in dimension from those behaviors represented in singing in the school chorus. Similarly, the behaviors represented in varying degrees of student proficiency in reading-writing-speaking-listening in a foreign language are different at least in degree and perhaps in kind from the behaviors represented by scholarship in that language. If this kind of analysis is worth anything, the entire elective area might profit by undergoing it.

What *are* American high schools teaching? If several individuals visited as a group hundreds of schools in all parts of the country, they would no doubt find many similarities in administrative organization, teaching personnel, school plant, programs, requirements, electives, and the like. If they wrote a "committee report," they could state that objectives were similar over the country, that the methods of reaching objectives were similar, and that pupil outcomes from school to school were much the same. They could probably reach agreement on the statements to be included in a committee report.

But the individual members of the committee might also experience feelings of doubt and uncertainty, such as these: After all, we *saw* how this school in this community differed from that school in that community. They just cannot be the same. They *must* be different. Perhaps we have merely reached agreement on a "formula," on a "way of talking" about each school, that makes all schools appear much alike. Perhaps if we reached agreement on a different way of talking about schools, we might find much greater differences all around.

The following miscellany of chapter comments is presented with the doubts and uncertainties of the two preceding paragraphs in mind:

1. Schools in general are requiring 16 Carnegie units for graduation, of which 8 are commonly prescribed and 8 are elective. Wide differences occur in ways of meeting requirements in both prescribed and elective subjects.

2. Schools are scheduling students for the full school week, and more and more students will probably graduate with more than 16 Carnegie units.

3. Course offerings are increasing with no end in sight, and only uncertain statements can be made that course offerings are either too many or too few.

4. Adjustment to the needs, interests and abilities of students in the total school program is achieved through the four main "curriculums": academic, vocational, commercial, and general. Within each of the four, a student may work his way along various available "tracks."

5. Adjustment to pupils within courses is made primarily through various interpretations of the "activity-experience" approach, which has led to some uncertainty about how content in one course differs or ought to differ from the content of another.

6. Adjustment is made by teachers within individual classes, placing a heavy burden upon the knowledge, training, experience, and general skills of the teacher in that particular class.

7. Adjustment goes on continuously in all parts of the country in that school personnel are practically everywhere engaged in a tremendous amount of work in the way of course development and course revision.

8. Whether because of adjustment or for other reasons, the holding power of the high school is better than it has ever been, and it seems to be growing stronger.

9. Adjustment has "adjusted prescription almost out of sight," and the whole idea of prescription seems destined for serious investigation.

10. Adjustment of the school program to the manpower needs of the nation is becoming a problem of increasingly grave concern.

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Selection and Organization of Curriculum Content: An Analysis

Arno A. Bellack

FEW PROBLEMS in the field of education are more complex and controversial than those to which this chapter is addressed. What is the nature and what is the function of subject matter in the instructional program of the high school? What is the source of curriculum content? On what basis should it be selected? In what fashion should it be organized? There are no simple, direct answers to these difficult questions and none will be attempted here. My objectives are much less ambitious—to explore certain facets of the questions raised and to suggest some possible directions for continuing investigation.

At the outset it might be well to point out that all shades of educational opinion recognize, implicitly or explicitly, the central importance of content or subject matter (these two terms are used interchangeably in this chapter) in curriculum theory and practice. Indeed, a curriculum without content would be an educational curiosity beyond the furthest reaches of imagination. Instruction is always about “something,” whether that something be carried in the matrix of first-hand personal experience or whether it be imbedded in the systematically and theoretically organized subject matter of the disciplines. This is not to say that problems of content selection and organization have always been accorded the attention they deserve. As a matter of fact, they have been strangely neglected during recent decades, particularly in certain of the quarters espousing “progressive” educational ideas.

Progressive educational thought as it has developed in this country has been in large measure a reaction against a conception of schooling

that placed major stress on "logically organized subject matter set out to be learned." Rather than focusing attention on organized fields of knowledge to be mastered (or, more frequently, to be committed to memory), the progressive teacher emphasizes "meaningful experiences" and "purposeful activities" as the means by which the objectives of the school are to be reached. This newer view, stemming largely from the thought of John Dewey, embodies a conception of subject matter markedly different from that which was inherent in the traditional view. For quite clearly, divergent views concerning the nature of the teaching-learning process imply different views concerning the nature and role of subject matter. It is important to note here that problems of subject matter selection and organization loom large even in a reconstructed view of learning and teaching such as that set forth by John Dewey.

Since "experience" has become the watchword of the new education, the concept of content must find its significance and meaning within the context of a comprehensive view of experience. "Experiencing," Dewey reminds us, "has no existence apart from subject matter experienced; we perceive objects, veridical or illusory, not percepts; we remember events and not memories; we think topics and subjects, not thoughts; we love persons, not loves. . . . Experiencing is not itself an immediate subject matter; it is not experienced as a complete and self-sufficient event."¹ Clearly, subject matter is a concept that cannot be dispensed with in a theory of education based upon experience.²

Yet it is apparent that proportionately greater attention has been given by the exponents of the new education to problems of method than to problems of content. Almost twenty years ago John Dewey was led to observe in *Experience and Education* that the weakest point in progressive schools was the selection and organization of subject matter. He recognized that this was probably inevitable be-

¹ John Dewey. *Philosophy and Civilization*. New York: G. P. Putnam's Sons, 1931. p. 261.

² Note this comment by Dewey: "Take, for example, the question of organized subject-matter. . . . The problem for progressive education is: What is the place and meaning of subject-matter and of organization *within* experience? How does subject-matter function? Is there anything inherent in experience which tends toward progressive organization of its contents? What results follow when the materials of experience are not progressively organized? A philosophy which proceeds on the basis of rejection, of sheer opposition, will neglect these questions. It will tend to suppose that because the old education was based on ready-made organization, therefore it suffices to reject the principle of organization *in toto*, instead of striving to discover what it means and how it is to be attained on the basis of experience." John Dewey. *Experience and Education*. New York: The Macmillan Company, 1938. p. 7-8. Copyright by Kappa Delta Pi. Used by permission.

cause these schools were attempting to implement new and difficult ideas. But, he concluded, "it is ground for legitimate criticism . . . when the ongoing movement of progressive education fails to recognize that the problem of selection and organization of subject matter for study and learning is fundamental."³

The situation to which Dewey refers has not changed much in the intervening years. Current educational literature is seriously short on careful, systematic analyses of subject matter and its role in the instructional program. There is, as a matter of fact, reason to believe that some recent controversies over the high school curriculum might have been more profitably carried forward if explicit attention had been given to the nature and function of subject matter in the opposing positions. Many educators and laymen seem to base their view of the curriculum on unexamined assumptions concerning the nature and function of content. On the one hand, there are those who consider subject matter sacrosanct (particularly their own field of specialization) and inveigh against those who allegedly are intent on "watering down" the curriculum and excluding rigorous, systematic study from the high schools. On the other hand, there are those for whom subject matter is a term of opprobrium and who feel that they have won the day if they but label their opponents' position "the subject matter approach" to teaching. These two viewpoints represent extreme alternatives, to be sure, and other points of view are readily identifiable. Unfortunately much of the discussion concerning the place of content in the curriculum is carried forward in exactly such extreme terms.

Perhaps light can be shed on problems arising out of these confusions by examining in some detail the *source* of subject matter to be included in the instructional program. The social nature of the school's task provides a clue as to where to turn in search for this source. Schooling is an integral part of the process of socialization by which the young grow into active membership and participation in the way of life—the culture—of their society. It seems reasonable, therefore, to look upon the expanding content of the culture as the source of curriculum content. It is here proposed that curriculum content be viewed as those elements of the content of the culture which are considered appropriate or relevant to the instructional aims of the school. The remainder of this chapter is given over to a discussion of the content of the culture and its relationship to the content of the curriculum.

³ John Dewey. *Experience and Education*. New York: The Macmillan Company, 1938. p. 95-96. Copyright by Kappa Delta Pi. Used by permission.

The Culture: Source of Curriculum Content

Man's uniqueness among the creatures on earth is due in large measure to the fact that he has a culture. Those abilities, characteristics and modes of behavior that we identify as distinctively human are the result of man's living in a culturally transformed environment—an environment of traditions, customs, beliefs, institutions, sciences, arts, and common sense ways of thinking and doing things that are part and parcel of the shared life of the people.

The concept *culture* may be defined in numerous ways depending on the purpose to be served by the definition. For illustrative purposes, this discussion turns briefly to the point of view set forth by Kingsley Davis, in his book *Human Society*, for it seems to the present writer to be particularly relevant and helpful in considering problems and issues relating to curriculum content. Davis writes that culture "embraces all modes of thought and behavior that are handed down by communicative interaction—that is, by symbolic transmission—rather than by genetic inheritance. It is what we learn from others through speech, gesture, and example, as opposed to what we acquire through heredity."⁴ Modes of thought and behavior peculiar to a given culture and transmitted by communicative interaction thus constitute the content of the culture from which the schools select content for the curriculum. The terms *cultural heritage* and *knowledge* (both terms used in a very broad and general sense) are frequently employed as synonyms for what is here called the content of the culture and will be so used in this discussion.

The resources that constitute the content of the culture are of great variety and do not lend themselves to facile classification. Our concern here is not with an exhaustive catalogue of cultural content, but with an understanding of the nature of the resources of the culture. Actually, there are no modes of classification that gather in and categorize all the myriad facets of the culture and leave no remnants. The content of the culture can be categorized in many different ways to accomplish many different purposes. Consider for a moment some of the distinctions that are frequently made.

1. There are the systematically organized fields of scientific inquiry whose primary concern is the development of theoretical explanations of natural and social phenomena whether or not there are any immediate practical applications for these findings. In contrast, there are the applied, technical fields designed to guide the performance

⁴ K. Davis. *Human Society*. New York: The Macmillan Company, 1950, p. 3-4.

of practical tasks that society deems important like engineering, medicine and farming.

2. There is "common sense" knowledge consisting of certain meanings, ideas, values, beliefs and ways of doing things that presumably most active adult participants in the society possess, to greater or lesser degree, and which is functionally organized to carry forward the everyday, nonspecialized activities in the society—those associated with citizenship, family living, ordinary business affairs, and the like. This common sense knowledge is frequently referred to as the "practical arts" of everyday living. There is, on the other hand, technical and technological knowledge essential to the performance of certain rather specialized tasks (like teaching, practicing medicine, soldiering) and required only of those who perform these tasks—members of the various professions and vocations.

3. There are certain fields of endeavor like the natural and physical sciences which are carried forward by methods that are primarily intellectual or cognitive in nature. In contrast, the creative arts attempt to plumb, reflect and refine the more inchoate depths of human experience and present them in symbolic forms that primarily evoke emotional, aesthetic reaction rather than stimulate intellectual activity.

4. There is what some sociologists label "explicit" culture—consciously recognized and acknowledged ideas, principles, beliefs, and values that guide conduct in numerous activities engaged in by members of the society. In contrast, there is what is termed "implicit" culture—pervasive and unexpressed notions and assumptions which manifest themselves in, and give direction to, behavior, but are rarely if ever consciously verbalized.

The various categories of the expanding content of the culture thus briefly and by no means completely described should be viewed as intimately related and mutually reinforcing, not as discrete, self-contained entities. A few illustrations will help to make this point clear. The technical and applied fields draw heavily on the theoretical sciences for basic concepts and methodologies. The field of medicine, for example, utilizes research findings from several theoretical sciences—physiology, chemistry, biochemistry, and others—to guide it in its practical operations. In similar fashion, common sense ideas that serve as guides in everyday affairs and scientific concepts interpenetrate to such an extent that Conant⁵ is led to observe that "any attempt to

⁵ J. Conant. *Modern Science and Modern Man*. Garden City, N. Y.: Columbia University Press, 1952. p. 136.

draw a sharp line between common sense ideas and scientific concepts is not only impossible but unwise."

Indeed, the organized, systematized fields of inquiry and creativity have in large measure grown out of the practical arts of everyday affairs. In turn, the findings of research in the scholarly disciplines influence the conduct of practical activities, as when psychological studies in human growth and development influence child-rearing practices and pedagogical methods. Also, the scholarly disciplines are not mutually exclusive fields, separated by impenetrable walls. Quite the contrary is the case. In investigating a wide range of problems the scientist—both in the natural and social sciences—crosses the traditional boundaries of the disciplines. For example, attempts to discover explanations for social phenomena associated with prejudice involve, at a minimum, the fields of psychology, sociology, and anthropology. Likewise in the physical sciences biochemistry, to name just one field, transcends the customary boundaries of both biology and chemistry.

Furthermore, the constituent facets of the culture are not static and immutable. One distinctive feature of the sciences—both theoretical and practical—is that they are cumulative; that is, the findings of one investigation become the foundation and springboard for carrying on further investigations. The sciences are being made and remade constantly as new theories are formulated and new discoveries are made. In contrast, the humanities—art, philosophy, and literature—are not cumulative in the same sense that the sciences are cumulative. That is, though occasionally employed as models, the artistic and philosophic works of one individual are not employed as means by his successors. But these fields too are constantly growing and expanding as new works of creativity, thought, and imagination are produced.

It cannot be assumed that the culture, although constituting by definition "a way of life," is an entirely self-consistent, mutually compatible system of ideas, beliefs and practices. Quite the contrary is the case in our complex society. Sociologists have identified certain contradictory tendencies and assumptions that enjoy wide currency and continue to operate side by side. For example, Lynd reminds us that on the one hand it is widely held that "Life would not be tolerable if we did not believe in progress and know that things are getting better. We should, therefore, welcome new things." At the same time it is held, frequently by the same individuals, that "The old, tried fundamentals are best; and it is a mistake for busybodies to try to change things too fast or to upset the fundamentals."⁶

⁶ R. S. Lynd. *Knowledge for What?* Princeton: Princeton University Press, 1939. p. 61.

The content of our culture, then, is a complex intricate web composed of many modes of thought and behavior, intimately and organically related, dynamic and constantly undergoing reconstruction. Each generation builds on the heritage it inherits, sloughs off certain elements of it and adds to it on the basis of its own unique experience as new discoveries are made, new theories are formulated and adaptations to changing conditions become necessary.

Content of the Curriculum

What content from the vast array included in the cultural heritage shall the high schools select for their instructional programs? Choice is inevitable for at least two reasons. First, the accumulated and ever-growing mass of cultural content of many kinds has reached such proportions that comprehensive grasp of the total range of knowledge is out of the question for any one individual. The Eighteenth Century Encyclopedists could aspire to such comprehensiveness, but now there can be no such aspiration. Therefore, selection on some basis perforce must take place. Secondly, the schools cannot claim responsibility for the entire burden of cultural transmission and renewal. Many parts of the culture are transmitted through other institutions like the home and the church, or are learned quite informally through normal social relationships with peers and adults.

Contrasting conceptions of educational purpose call for correspondingly different views as to what cultural content is appropriate for the instructional program of the school. For example, educators who stress cultural transmission as such as the primary or sole function of the school select what they deem the "essentials" of the culture for deliberate inculcation. On the other hand, those who hold that the function of the school is not merely to preserve the values of the past, but to encourage the continuous reinterpretation of the heritage so that the accumulated experiences of mankind become tools for a fruitful life in the present, seek methods for putting students in touch with the culture in such fashion that they learn to utilize it creatively and purposefully in meeting life situations. In similar fashion, one's point of view concerning the relationship between content and teaching methods exercises a decided influence on the selection and organization of curriculum content. Some of the problems and issues dealing with the selection and organization of content appropriate for inclusion in the high school curriculum are discussed in this section under the following headings: (a) relationship of content to the purposes of schooling; (b) relationship of content to teaching methods.

Curriculum Content and Purposes of Schooling

Recent years have witnessed a determined effort on the part of many educators to bring about a closer relationship between what goes on in school and life outside. It is significant that this concern is not limited to any one philosophical or psychological school of thought. There is widespread concern that school experiences make a difference in the lives of youth—as individuals, as citizens, as workers, as homemakers. “Education for use rather than mere possession” is the phrase coined by Featherstone to highlight the importance of viewing the school’s task as functional. “The fruit of education is intelligence in action. The aim is mastery of life.” So write the members of the Harvard Committee on *General Education in a Free Society*.⁷

All too frequently the traditional school was a world sufficient unto itself, far removed from and unrelated to the world of human affairs. The consequences of this separation were widely noted and greatly deplored—learning that degenerated to sheer verbalism and lack of serious interest and effort on the part of many students. Educational reformers representing widely divergent views have consequently bent their efforts to making the work of the school meaningful for students and significant for the larger life outside the school. Whitehead, for example, has warned against cluttering the curriculum with “inert ideas” that do not function in the experiences of students. The problem of keeping knowledge alive is, for Whitehead, the central problem of all education.

Although there is apparently widespread agreement as to the desirability of developing high school programs that make a difference in the lives of adolescents, there is considerable disagreement as to the way or ways in which curriculum content should be selected and organized to contribute to that end. It is hazardous to attempt a simplified classification of various types of curricular patterns, but without doing too much violence to the facts it seems to the present writer that two contrasting approaches may be identified.

First, there is the point of view that curriculum content should be selected and organized on the basis of categories of life functions or youth needs. This position, which has gained wide acceptance among educators during recent years, in effect calls for a curriculum that deals with life situations as they are faced by adolescents and makes a direct assault on the problems of living as they are encountered by youth.

⁷ Report of the Harvard Committee (1945). Cambridge, Mass.: Harvard Univ. Press, Copyright, (1948) (1945) by The President and Fellows of Harvard College. p. 75.

Accordingly, instruction is organized around problems or topics dealing with health, family relations, civic affairs, community life, recreation, and the like. Resources of the culture—generalizations, skills, concepts, techniques and methods—are selected on the basis of their relevance to the topics under study and their contribution to the solution of personal and social problems faced by students. This point of view has found expression in many influential statements of policy and opinion published within recent years and attempted applications of this approach are to be observed in courses labeled core, common learnings, social living and the like.

Another group of educators, equally concerned that the school program contribute to the enrichment of the lives of students, holds quite a different viewpoint when it comes to the selection and organization of curriculum content. This group contends that all youth live in multiple environments—the changing ones of the world of nature, those of social organizations and interest communities, and the personal environments of introspection that each one lives in with himself. The intellectual tools to interpret and deal with these aspects of the environment are to be found in the great organized fields of human inquiry and creativity. Therefore, the argument runs, a functional program is one that introduces youth to the areas of inquiry and creativity that correspond roughly to the three interrelated aspects of the environment—the social sciences, the natural sciences, and the humanities. Such a curriculum provides opportunities for youth, each according to his unique abilities and inclinations, to become acquainted in creative fashion with these fundamental cultural interests, and helps them see the relevance of the heritage for their own lives as individuals, citizens, homemakers, and workers. In this view, the proposals that urge a direct attack on life's problems have no monopoly on functionalism in education.

The ostensible issue raised by these contrasting approaches is this: should content be selected and organized on the basis of certain organized fields of knowledge or on the basis of categories of life experience and adolescent needs? One approach organizes the program around selected, systematized resources of the culture; the other organizes the learning experiences around the kinds of situations in which problems are faced in everyday affairs. What are the advantages and disadvantages inherent in each of these viewpoints in developing a functional program for youth? Are they, as is usually assumed, mutually exclusive? Or is there justification for looking upon them as mutually reinforcing?

Content selected and organized on basis of life functions or youth needs. For those who would close the gap between what goes on in school and life outside the school, the proposal that the curriculum be organized around life functions or needs of youth has considerable appeal. It is noteworthy that this approach is by no means a recent innovation. Herbert Spencer, in 1859, anticipated the modern trend toward functional organization in his answer to the question, "What knowledge is of most worth?" In Spencer's view, that knowledge is of most worth which: (a) contributes to self-preservation of the individual; (b) helps the individual in the process of earning a living; (c) helps the individual discharge the duties of parenthood; (d) facilitates and enlightens the activities of citizenship; and (e) contributes to wise occupation of leisure hours.⁸ The influential report of the Commission on the Reorganization of Secondary Education in 1918 identified seven major categories of personal and social living which were to form the framework of objectives for the school: (a) health, (b) command of fundamental processes, (c) worthy home membership, (d) vocation, (e) citizenship, (f) worthy use of leisure, (g) ethical character.⁹ As Cremin points out in Chapter I, "the statement (of Cardinal Principles) has for close to four decades provided the orientation and terminologies for the development of secondary education." In some of the derived formulations, certain broad areas of life experience are highlighted, as in French's organization of youth needs into four major categories: (a) satisfying physical and mental health needs, (b) life-work competency, (c) leisure interests and standards, (d) group living and civic affairs.¹⁰ In others, the social aspects of life experience are stressed, as in the areas of living identified by Harap: living in the home, leisure, citizenship, organized group life, consumption, production, communication, and transportation.¹¹ In still others, an attempt is made to categorize both personal and social needs, as in the four-fold classification of adolescent needs developed by the Commission on Secondary School Curriculum of the Progressive Education Association: (a) needs in immediate social

⁸ Herbert Spencer. *Education*. New York: Appleton-Century-Crofts, Inc., 1875. p. 32.

⁹ Department of the Interior, Bureau of Education. *Cardinal Principles of Secondary Education*. Bulletin 1918, No. 35, p. 11-16.

¹⁰ Will French. "Characteristics of a Secondary School Meeting the Needs of Youth." *Adapting the Secondary School Program to the Needs of Youth*. N.S.S.E. 52nd Yearbook, Part I, 1953. p. 300-11.

¹¹ H. Harap. *The Changing Curriculum*. New York: Appleton-Century-Crofts, Inc., 1937. p. 96.

relationships, (b) needs in wider social relationships, (c) needs in economic relationships, (d) needs in personal living.¹²

These broad categories of life functions or youth needs are viewed in many different ways. Some look upon them as broad, comprehensive objectives for the curriculum. The Commission responsible for the Cardinal Principles, for example, urged that the subject areas included in the curriculum be reorganized so that instruction in each of them would contribute to the growth of students toward the seven objectives. This point of view is still held by some educators. Within the past few decades, however, the tendency among a growing number of curriculum experts has been to look upon these categories as centers around which to select content and organize learning experiences. Without underestimating the differences among the various formulations indicated above—and they are considerable—the assumption implicit or explicit in all of them is that the most effective way to develop a functional program is to organize instruction around problems, topics, or situations that relate directly to the varied aspects of living or needs of youth. Appropriate resources of the culture are selected on the basis of relevance or instrumental value in dealing with these practical affairs. In other words, a directly functional, practical, “psychological” organization of instruction is urged, rather than one based on the concepts, organizing principles, and distinctive methods of the systematic fields of inquiry and creativity.

These approaches embody certain features that make them attractive to many educators intent on developing a functional program for high school youth. First of all, these plans have been instrumental in eliminating a great deal of deadwood from the curriculum in those schools where they have been introduced. The various formulations of life functions or youth needs do provide the teacher with criteria, comprehensive and general though they may be, by which to judge the respective claims of different subject matters. In essence, these criteria call for the selection of subject matter that is relevant to significant aspects of the life experience of adolescents and to the fundamental problems of our time and culture.¹³

The emphasis is unmistakably upon the contemporary. Whitehead

¹² V. T. Thayer, C. Zachry, R. Kotinsky. *Reorganizing Secondary Education*. New York: Appleton-Century-Crofts, Inc.; 1939. Chapters V-VIII.

¹³ There are, to be sure, marked differences among these points of view with regard to the relative importance of personal and/or social aspects of problems selected for study. The current tendency, however, seems to be in the direction of giving attention to both personal and social dimensions of problems and issues included in the curriculum.

clearly states the case for this point of view: "The only use of knowledge of the past is to equip us for the present. No more deadly harm can be done to young minds than by depreciation of the present. The present contains all there is. It is holy ground: for it is past; and it is future."¹⁴ The study of significant current issues and problems thus *includes* an understanding of the past and a concern for the future, for the past and the present are inextricably interwoven. Few, if any, contemporary problems can be understood without insight into their historical roots. The future is likewise continuous with the present. The "educator more than the member of any other profession," Dewey reminds us, "is concerned to have a long look ahead The central problem of an education based upon experience is to select the kind of present experiences that live fruitfully and creatively in subsequent experiences."¹⁵

A second admirable feature of the directly functional approaches to the selection and organization of content is that they make it possible for the teacher to highlight the relatedness of the various fields of knowledge and to point out the intimate connections between the realms of intellectual, practical and aesthetic endeavors that constitute the content of the culture. Problems faced in personal living and broader social issues cannot be partitioned into neat, self-contained compartments if they are to be dealt with meaningfully and realistically. Implicit in the curricular approaches under discussion here is the expectation that high school students will be helped to understand the interrelationships that exist between the various areas of living. They should know, for example, that health problems confronting the nation have political ramifications, and that the development and control of atomic and nuclear energy are not exclusively scientific problems, but are rather questions of broad social policy involving grave moral considerations. Nor can any of these problems and issues be dealt with adequately or comprehensively by means of concepts and methods derived from any one field of study. Rather, an approach is needed which makes it possible for students to draw on concepts, generalizations, and methods from all relevant aspects of the culture. In theory at least, the directly functional approaches are committed to this view.

These approaches, for all their appeal, are not without ambiguities

¹⁴ A. N. Whitehead. *The Aims of Education*. New York: The Macmillan Company, 1953. p. 14.

¹⁵ John Dewey. *Experience and Education*. New York: The Macmillan Company, 1948. p. 16, 90. Copyright by Kappa Delta Pi. Used by permission.

and difficulties. The interrelatedness of the various areas of living and categories of adolescent needs makes for genuine difficulties and confusion when an attempt is made to organize instruction around them. There are in reality no problems of living that fall exclusively in any *one* of the categories of needs or life areas. Problems of health have implications for home and family living and for vocational adjustment, for example. Needs in immediate social relationships are not unrelated to needs in personal living. Stated differently, the areas of living and categories of needs are rationalizations about life and do not symbolize life as it is actually lived in all its relationships and ramifications. Furthermore, some of the categories refer to qualitative aspects of living—aesthetic appreciation and ability to solve problems rationally, for example—qualities that desirably should permeate all of life.

These considerations have led many educators to the conclusion that content should not be selected and organized directly around the separate categories of life areas or needs. Rather, it is proposed that problems, topics, or issues which cut across the various categories should serve as organizing foci for instruction and hence, for the selection of content. Through teacher-pupil planning, problems of concern to adolescents broader than those encompassed by any single area of living or youth need are chosen as the centers around which instruction is organized. The assumption is that in the course of experience sought necessary knowledge and skills will be acquired, and that somehow the "habit" of learning will be developed as new interests, problems and tasks emerge. This procedure raises as many problems and questions as it solves. Does this approach insure exposure to a wide range of basic experiences that might be most strategic? There are those who hold that wholehearted purposing and growing competence in problem solving are the most significant considerations and that it is of little consequence which problems are selected for study so long as they engage the interests of students. But this point of view will hardly satisfy those who hold that while competence in problem solving is a worthy objective, there are important and significant aspects of the culture that should be brought meaningfully into the experience of students. Childs¹⁶ holds that this latter view is not inimical to the new education: "The process of becoming a person is a dual process—it involves 'wholehearted purposing'; it also involves mastery of the tools and knowledge which man has already

¹⁶ J. L. Childs, "Some Ambiguities in Value Theory in Education." *The American Elementary School*. Thirteenth Yearbook of the John Dewey Society, 1953. p. 18.

invented and discovered." It may well be that basic tools and knowledge can best be acquired by students through engaging in inquiry and purposeful activity. But even under such circumstances, these learnings must be conscientiously identified and provided for in the curriculum.

To complicate the situation even further, there is the problem of continuity or relatedness in learning. This is one of the most difficult and elusive problems faced by teachers who would organize their programs around youth needs or areas of living, and one that remains largely unsolved. It is generally agreed that there should exist a close relationship between succeeding experiences, but few of the newer programs have been successful in incorporating this principle of continuity into their practice. Descriptions of some of these programs leave one with an uncomfortable sense of hodgepodge without accruing experiences and learnings building upon one another—an agglomerate rather than integrated series of skills and knowledge.

It is held by some that the integration is provided by the self that experiences the disparate items. This is, after all, the way we learn from life, when and if we in fact do learn from life. But even life presents us with a procession of recurring situations which, while no two of them are identical, are still to greater or less degree analogous. The perplexing problem still remains as to how the self acquires the ability to perceive relationships between succeeding experiences and to integrate new meanings into its already existing cognitive structure. Our present limited knowledge about processes by which the self is developed provides little practical guidance for the curriculum worker in his search for techniques to insure the continuity and relatedness of learning.

Another major difficulty has to do with procedures and skills involved in intelligent selection of concepts, generalizations and methods from the varied disciplines to deal with problems under study. It would seem essential that students achieve a growing acquaintance with the organized resources of the culture so that they will have some understanding of the fields that might be relevant to problems or topics of concern to them. Further, it cannot be assumed that scholars in a given field are in agreement on all or most of the basic problems in that field. In accepting the point of view of one economist on taxation policies, for example, students should be aware of the contrasting, alternate views they thereby are excluding. Few of the programs based on student needs or areas of living have directed their attention to either of these considerations. The complicated nature of the

questions raised here is demonstrated by the simple and painfully obvious fact that one person cannot possibly master all the subject matter fields that are relevant to problems of contemporary living. In many instances, the ordinary citizen will have to depend on the experts in the various fields. The problem then becomes how to recognize expertness in the disciplines that might conceivably enter into the solution of problems and issues that must be dealt with. But the experts differ too. How then to proceed? One solution that has been proposed to this dilemma is to have the teacher or curriculum expert take responsibility for selecting relevant materials from the various fields of knowledge for each problem or topic. The difficulty here is that the school properly aims at developing independence on the part of students, and if the creative job of selecting relevant data and material is done by the teacher or curriculum specialist, how is the student to gain competence in this essential skill?¹⁷

Content selected and organized on basis of systematized fields of study. As observed earlier in this discussion, interest in developing functional programs for high school youth is not confined to those who urge that curriculum content be selected and organized on the basis of adolescent needs or areas of living. Another group of educators, equally concerned that the high school program should make a difference in the lives of youth, holds that the systematized resources of the culture—organized fields of inquiry and creativity—provide suitable bases around which to develop the curriculum. The proponents of this view hold that there is nothing “unlifelike” about these fields of study, as is frequently alleged, for they too have been developed out of man’s activities, thought and endeavor. These cultural resources, communicated in meaningful fashion to succeeding generations, provide indispensable working capital in the management of human affairs and serve as the foundation from which continued social progress is made.

This approach does not content itself with the mere static transmission of the heritage; it is equally concerned with its continuous re-examination and reconstruction. Neither does this view deny the importance of imaginative, creative thought. It does hold, however, that such thought is the result of adaptation, reorganization and reconstruction of materials already a part of the cultural content, and not a matter of ideas drawn out of the thin air and unrelated to what has gone before. Dewey’s admonition that there is no “spontaneous germi-

¹⁷ For a useful and provocative discussion of this problem see: Lee J. Cronbach, editor. *Text Materials in Modern Education*. Urbana, Illinois: University of Illinois Press, 1955. Chapter III.

nation" of ideas is relevant here, and Oppenheimer wisely observes that "knowledge rests on knowledge; what is new is meaningful because it departs slightly from what was known before."¹⁸

There are marked differences of opinion as to what fields of study should be included in the curriculum and how this knowledge can be related meaningfully to the experience of students. By and large, contemporary supporters of this view are of the opinion that the content of the curriculum should be organized around what for want of a better term may be labeled the "broad fields." What this term means may perhaps be made clear through a few illustrations.

In his book, *Education in a Divided World*, Conant proposes that the high school curriculum in its general phases should encompass three major areas of study.

1. The Humanities—art and literature
2. The Study of Man—ethics, political science, economics, psychology, sociology and anthropology. History and philosophy are fields of study that form the connecting link between these subjects and the humanities.
3. The Natural Sciences.¹⁹

In projecting a high school program built around these three areas, Conant repeatedly makes reference to the contribution that the study of these fields should make to the personal well-being of adolescents and to their increased effectiveness as citizens. He urges that students be helped to see the "relevance of formal study and 'book learning' to the problems of the day." Furthermore, he recognizes that the results of schooling should be evident in the students' present conduct and their subsequent behavior as adults: "As free citizens of a republic, irrespective of our religious beliefs, we are surely concerned not with what a man has studied but what he does." Nor can the schools, in Conant's view, be concerned only with the transmission of the heritage. They must also give attention to its continuous reconstruction: "The goal must be a nation in which citizens are not idly enjoying the heritage of the past but are eager for that change which is the birth-right of a free people seeking new insights and anxious to apply new knowledge."

¹⁸ J. R. Oppenheimer. *Science and the Common Understanding*. New York: Simon & Schuster, 1953. p. 90.

¹⁹ Reprinted by permission of the publishers from James B. Conant, *Education in a Divided World*. Cambridge, Massachusetts: Harvard University Press, 1948. Chapters 5, 6 and 7. Quotations in paragraphs dealing with Conant's views are drawn from these three chapters.

Instruction in the three major areas of study takes its cue from these general principles. In the Humanities, teaching is related to "ethics, the welfare of the body politic, and the emotional stability of the individual," and art is to be seen as "a form of personal experience." In the Study of Man, certain basic ethical and moral postulates that guide our behavior as a people are central. Conant recognizes that the unifying faith in these postulates is not merely "a matter of words or intellectual concepts but of direct relationship between men. What we mean by democracy may be illustrated for some people better by action than by words." In the Natural Sciences, Conant would have the schools stress the intimate relationships between research results in the theoretical fields and the rapid development of the practical arts—for example, improvements in the art of growing food and in the destructive power of weapons.

A second illustration comes from a recent book by Harry Broudy entitled, *Building a Philosophy of Education*.²⁰ It is Broudy's contention that all men need knowledge which helps them understand their relationships to three aspects of their environment—the physical environment, the social environment, and the environment constituted by their own psychic life or what he refers to as the life of the self. Building on this basic viewpoint, Broudy proposes that the curriculum be organized around three major areas:

1. The Natural Sciences
2. The Social Studies
3. Living with the Self or Self Science

Broudy anticipates an objection to his method of selecting content. He recognizes that some will protest strenuously, for the simple reason that students will not be able to deal successfully with genuine life problems if they have compartmentalized their learnings in the manner made necessary by the procedures proposed. He admits that this is a sound objection and suggests that students learn "the habits of using knowledge" in problems courses paralleling the courses in which direct instruction is given. There are, therefore, two types of courses in each of the three areas of study. The purpose of the subject matter course is not to solve a social problem, but to get ready to study problems that inevitably cross the boundaries of the individual disciplines. The purpose of the problems course is to give practice in

²⁰ Harry Broudy. *Building a Philosophy of Education*. New York: Prentice-Hall, Inc. 1954. Chapter 7. Quotations in paragraphs describing Broudy's views are drawn from this chapter. Adapted by permission of the publisher.

using knowledge to understand a real problem—a problem of the culture.

Other examples might be given, but the two illustrations will suffice to give the reader some idea how those who subscribe to the general proposition that the secondary school curriculum should be functional in the lives of youth might select and organize content on the basis of organized fields of knowledge. As is the case with the directly functional approach, the viewpoint just discussed would appear to have some elements of strength and certain features open to question.

Educators partial to the view represented by Conant and Broudy call attention first of all to the fact that the systematized fields of study represent significant aspects of the culture which the school is uniquely equipped to introduce to youth in meaningful ways. Making available to youth for use and enjoyment wide reaches of mankind's experience is a prime objective for the proponents of this view. No other agency or institution in our society has the personnel and other essential resources to perform this function effectively. Unless students become acquainted with these important facets of the culture in school it is doubtful that they will learn about them elsewhere, at least not so well. The school's task is the extraordinarily difficult one of adapting instruction in these fields to the exigencies of personal and social living and, in this process, endowing students with the control inherent in the key concepts with which to interpret the experiences that come upon them and helping them understand the distinctive contributions that each of the broad areas of inquiry and creativity can make in dealing with life's problems.

This last point suggests the second major advantage frequently advanced to support those curriculum proposals that organize instruction around the broad groupings of the disciplines. Each major field contributes a unique set of intellectual tools which are of inestimable help in dealing with the varied problems of modern living. Different fields of inquiry and creativity contribute in different ways to the solution of given problems. The natural sciences, the social sciences, and the humanities represent distinctive methods and conceptual schemes which view the world and man from quite different vantage points. Instruction in these areas has as its primary goal that of equipping students with key concepts and methods that inform and sustain intelligent choice in human affairs. But by no means are the various fields to be looked upon as airtight, isolated compartments. Rather, they are most profitably viewed as distinctive resources which individuals may bring into play at appropriate times. Knowing systems

of interrelated meanings as encompassed in the various fields of study is not incompatible with using these sets of ideas in dealing with a given problem. Only as students come to understand the unique conceptual schemes of the various fields will they grow in their ability to utilize them in ever more intelligent ways. As McMurray and Cronbach remind us, if students do not become acquainted with the organized and systematized resources of the culture, it is highly doubtful that they will think of asking the kinds of questions that the various disciplines help them to answer as they seek help in determining practical courses of action.²¹

A third argument frequently advanced by the proponents of the viewpoint under discussion here is that many adolescents in high school have reached the stage of intellectual development when ideas themselves and their interrelations are of moment to them. By and large, high school youth are already equipped with the more obvious and immediate aspects of their environment. Therefore it is argued that the systematized fields of study are appropriate ways of organizing thought for adolescents, at least for substantial numbers of them.

Substantiation for this argument may be found in Dewey's notion of the "progressive organization of subject matter," a principle central in Dewey's concept of the curriculum. In several of his key writings on instructional problems, he discusses this principle at length and repeatedly stresses its significance for an educational program based on experience.²² It would be an intriguing investigation to inquire why this idea has not received greater attention than it has by Dewey's interpreters, but that task is left to the educational historian. Our concern here is rather with the principle itself and its significance for the problems under consideration.

In *Experience and Education* (1938), his last book dealing exclusively with educational problems, Dewey devotes an entire chapter to this basic concept of curriculum organization.²³ It is his contention that "anything which can be called a study, whether arithmetic,

²¹ Cronbach, editor. *op. cit.*, p. 50.

²² See, for example, the following references: *Democracy and Education* (Chapter 14), *The Child and the Curriculum*, *Experience and Education*, and also *The Dewey School* by K. Mayhew and A. Edwards. Certain portions of the latter book were written by Dewey to explain the curriculum theory of the experimental school established by him at the University of Chicago.

²³ The following paragraphs include excerpts from Chapter 7, "Progressive Organization of Subject Matter" in *Experience and Education*. Copyright by Kappa Delta Pi. Used by permission.

history, geography, or one of the natural sciences, must be derived from materials which at the outset fall within the scope of ordinary life-experience." But this is only the first step. The next step is "the progressive development of what is already experienced into a fuller and richer and also more organized form, a form that gradually approximates that in which subject matter is presented to the skilled mature person." That the new education has given attention in its practice to the first of these two steps is readily acknowledged, but Dewey observes that the second step, "the orderly development toward expansion and organization of subject matter through growth of experience," has not received as much attention. Yet the principle of continuity requires that equal attention be given to both steps in organizing experiences for learning.

The difficulties in applying this principle with students in the later years of schooling are all too apparent. Two reasons are cited. First, it is difficult to determine the range of previous experience of older students as compared with the younger; and second, it is correspondingly more difficult to "find out just how the subject matters already contained in that experience shall be directed so as to lead out to larger and better organized fields." Dewey acknowledges that one of the great advances in modern curriculum practice for the elementary grades is that it "preserves the social and human center of the organization of experience." Centering learning experiences for elementary school students in the home, family and local community helps keep instruction close to the needs and interests of youngsters—and this is all to the good. But as students progress through the years of schooling—and this point is particularly important for those concerned with programs for junior and senior high school youth—there must be, in Dewey's view, "movement from a social and human center toward a more objective intellectual scheme of organization always bearing in mind, however, that intellectual organization is not an end in itself but is the means by which social relations, distinctively human ties and bonds, may be understood and more intelligently ordered."

Critics of the curriculum approach which calls for the selection and organization of content around broad fields of knowledge call attention to certain serious shortcomings. There is, first of all, the danger that concepts and principles from the disciplines which constitute the broad fields may find their way into the curriculum by accident, tradition, or considerations not relevant to life in the present era. The unfortunate result may be that the program of studies becomes burdened with extraneous and useless content. The existence of much

traditional content, unrelated to contemporary affairs, frequently results in inordinate emphasis upon the preservation of the inherited culture to the exclusion rather than upon the need for reconstruction in it.

Major work still remains to be done in setting up defensible criteria for the selection of concepts and generalizations from the vast reservoirs that constitute the various broad fields of study to the end that instruction will be built around those ideas that give greatest promise of illuminating and guiding life in the present and the future. *Is there any way to make reasonably certain that the materials selected for study are those that are richest in educational value? How can we go about incorporating into the program the results of the most recent thinking and research in the basic fields, organized in such fashion that they are meaningful for high school students and relevant for life today?* For example, social studies courses at the present time place primary emphasis on history with relatively little attention given to other social sciences like anthropology, sociology, social psychology and economics which have developed rapidly in recent decades and have produced many research findings that illuminate social conditions in the modern world and that can readily be taught to high school students.

Secondly, critics point to the apparent lack of success in relating instruction in the broad fields to life problems and the concerns of students. While students of average or high verbal ability may be able to make the application to practical affairs with little or no difficulty, this is surely not the case with students of lower verbal aptitude. Special care must be taken to make explicit and clear-cut the relevance of what is being studied for crucial problems in personal and social living. Few teaching procedures and materials have been developed to facilitate such application to everyday, practical affairs. Even for the brighter students, there is danger that premature structuring of ideas and principles may result in a high degree of glib verbalized learning as a substitute for clear understanding and intelligent application of ideas and principles.

A third shortcoming is that all too frequently little provision is made in plans organized around the broad fields for highlighting relationships between the various areas of study. While it is recognized that there is considerable advantage in acquainting youth with the distinctive concepts and methods of the broad fields, care must be taken to focus equal attention on the intimate relationships between the areas of study and to emphasize that usually more than one

discipline must be called upon in dealing with most problems of living. Cooperation among teachers in the different areas is desirable at every possible point, to the end that the social sciences, natural sciences, and the humanities may reinforce one another where all are relevant to a given topic, issue or problem. Pooling distinctive resources of separate fields to deal with problems is essential, for students profit by seeing how varied resources are brought into play in different ways in facing various types of situations.

There is still another facet of the relatedness of the various fields that bears mentioning here. While recognizing that Dewey's concept of the progressive organization of subject matter is helpful in thinking about the organization of curriculum content, exception can be raised to the interpretation given to the idea on pages 115-16. It is quite possible to argue that there are many ways of organizing ideas and that it is pedagogically unwise to insist that students force their thinking into the accepted molds furnished by the regular subject matter fields as traditionally organized. The organization of ideas which eventuates from the progressive organization of subject matter need not correspond to the organization of ideas associated with the traditional disciplines or even the broad fields. In this view, there is nothing intrinsic in the structure of these fields of study as currently conceived. Teachers would do well to help students seek new and ever better ways of organizing ideas not bound by the lines that at present stake out the preserves of the separate disciplines and broad fields. (This problem is discussed at greater length by Henry in Chapter V.)

Toward a comprehensive view of content selection and organization. The above analyses of the contrasting viewpoints, if they have any validity at all, would seem to indicate that proponents of both approaches *share* concern for two key values that are central in the development of functional programs for high school youth. First, both share the conviction that curriculum content must be germane to the life of adolescents in the present era. Programs developed around adolescent needs and areas of living place this consideration foremost and urge that instruction be organized directly around problems, issues and topics of concern to youth. In contrast, programs organized around the systematized resources of the culture come at this consideration obliquely, as it were, and stress the application of ideas and principles drawn from the various fields of study to problems of personal and social living. Second, both approaches recognize that cultural resources of many kinds are indispensable aids to youth in negotiating life's tasks and that growing understanding of and acquaintance

with ever-widening aspects of the content of the culture are important objectives for the school. Here again the contrasting approaches take this consideration into account in different ways and with varying degrees of success. In the one instance, resources of the culture are drawn upon selectively as need arises in dealing with life problems or situations. In the other, learning experiences are in fact organized around major groupings of systematized fields of inquiry and creativity.

Actually, then, *both* fundamental values are taken into account by *both* approaches, but in different ways and with different emphases. Both approaches, as we have noted, claim distinctive advantages that cannot easily be argued away. At the same time, both views seem to have inherent difficulties that can be attributed in large measure to the fact that in each case one of the two basic values is highlighted organizationally, while the other value, although equally significant, is taken into account only secondarily. The major difficulty in one instance is progressive acquaintance with ever-widening spheres of the resources of the culture. The difficulty in the other is the meaningful application to practical affairs of principles, ideas and methods drawn from the systematized content of the culture.

The question, therefore, arises as to whether curriculum workers might well look toward the development of a more inclusive view than that represented by either of the two approaches as currently set forth to achieve the broad values that both seem to share: (a) growing competence on the part of adolescents to deal with "practical" problems faced in everyday affairs, and (b) growing acquaintance with and creative use of systematized, "theoretical" resources of the culture which inform and guide practice. Both elements—the practical and the theoretical—are essential, mutually reinforcing ingredients in a functional program for youth. Dewey has stated the case for such a comprehensive view:

The aim of education should be to secure a balanced interaction of the two types of mental attitude [the practical and the theoretical], having sufficient regard to the disposition of the individual not to hamper and cripple whatever powers are naturally strong in him. The narrowness of individuals of strong concrete bent needs to be liberalized. Every opportunity that occurs within practical activities for developing curiosity and susceptibility to intellectual problems should be seized. Violence is not done to natural disposition; rather, the latter is broadened. Otherwise, the concrete becomes narrowing and deadening. As regards the smaller number of those who have a taste for abstract, purely intellectual topics, pains should be taken to multiply opportunities and demands for the application of

ideas, for translating symbolic truths into terms of everyday and social life. Every human being has both capabilities, and every individual will be more effective and happier if both powers are developed in easy and close interaction with each other.²⁴

The suggestion that both the practical and theoretical aspects of the student's educational development be given a place in the program of studies as here proposed by no means provides an easy solution to problems of content selection and organization. Indeed, it merely sets the problems for further study and experimentation. It might be helpful to identify certain of these problems suggested by the foregoing analysis:

1. The content of the culture has been identified as the source of curriculum content. Since the culture may be viewed in many different ways for different purposes, the question arises as to how we may best categorize the vast array of cultural content for instructional purposes. Is it conceivable that different modes of organization are required for different educational purposes? Systematic analysis of contrasting modes of organizing cultural content for instructional purposes would furnish curriculum workers basic data of great usefulness in curriculum planning and organization.

2. Much has been said in the discussion thus far about the importance of helping students utilize effectively cultural resources of many kinds in meeting life situations. Little empirical evidence is at hand to show how cultural resources are actually utilized in various types of situations and problems. What is involved by way of skills, attitudes, and knowledge in bringing to bear resources from several fields of study to deal with a given problem? What can reasonably be expected of high school students when it comes to securing a breadth and depth of background to negotiate the wide range of problems that any one person must cope with during a lifetime? How can the competencies involved in relating resources from many areas to a given situation or problem be taught best to high school students?

3. Dewey's principle of the "progressive organization of subject matter" seems to be a fruitful one in considering problems of content selection and organization. Analytical studies of the logical and psychological foundations of the concept would be most helpful, as would empirical studies of the processes by which the progressive organization actually takes place. To the present writer's knowledge this important concept has not been used as a guiding principle in any experimental curriculum venture on the secondary school level.

²⁴ John Dewey. *How We Think*. Boston: D. C. Heath & Co., 1933. p. 228-29.

This in spite of the fact that Dewey himself looked upon this concept as central in his views on curriculum matters.

4. When it comes to projecting new organizational plans, is it mere eclecticism to suggest that possibly both approaches discussed earlier in this chapter might be encompassed in a broader and more inclusive program? Although both share common values or objectives, their organizational forms differ markedly. But each seems to have inherent advantages not possessed by the other. On the theoretical level, when faced by such stark alternatives—each of which is useful for certain purposes and cannot replace the other—the scientist frequently relies on the principle of complementarity and makes a place in the scheme of things for both conceptions, even though they may give the appearance of mutual incompatibility.²⁵ What form a curriculum based on such a view would take is difficult to say at this point for there is little precedent in theory or practice to guide experimentation along the lines suggested. One might envision, however, a program which would include basic instruction in the major broad fields as defined on pages 112-13 together with a coordinating seminar in which students dealt with problems “in the round” and in which special effort is made to show the intimate relationships between the systematized fields of study as materials from these fields are brought to bear on a topic.

Curriculum Content and Teaching Methods

Few would deny that teaching methods and curriculum content bear a reciprocal relationship to each other. The “what” and the “how” of instruction are inextricably interrelated and one can be discussed to little account without the other. “Method,” Dewey reminds us, “means the arrangement of subject matter which makes it most effective in use. Never is method something outside of the material.”²⁶ It is, of course, possible to make a distinction in thought between method and content, if it is recognized that in actual practice no such differentiation exists. The discussion in this section turns to certain ideas concerning method that are currently widely held and the bearing of these ideas on content selection and organization.

In some quarters an attempt is made to deduce teaching methods from certain generally accepted psychological principles of a high order of abstraction like the following: Learning is basically goal-seeking behavior; an individual “learns” when he is motivated to

²⁵ For a useful analysis of the concept of complementarity see J. R. Oppenheimer, *op. cit.*, Chapter 5, “Uncommon Sense.”

²⁶ John Dewey, *Democracy and Education*. New York: The Macmillan Company, 1916. p. 194.

achieve goals and purposes that are meaningful and significant to him. This suggests that learnings provided by the high school should be vital to the adolescent, consonant with his interests and drives, and integral to his short- and long-term purposes and goals. In accordance with this view, curriculum content—selected resources of the culture—is of value to the student to the extent that it facilitates goal-setting and goal-seeking. The problem for the schools is how best to make available to oncoming generations the accumulated experiences of mankind for them to use and remake in gaining their satisfactions and meeting their needs.

But these high level generalizations do not dictate specific teaching procedures; nor do they designate the precise way in which content is to be selected and organized. Of necessity, teachers must seek more explicit formulations of the teaching-learning process to guide classroom practice. Exponents of modern education tend to follow the point of view developed and set forth by John Dewey.

For Dewey, learning is essentially a matter of problem solving. Central to his view is the contention that thought is engendered and learning takes place when an individual struggles to deal with confused, problematic situations. In order to resolve such puzzling, doubtful situations, the individual is forced to think his way out. He may very well call on his own past experience as well as utilize the experiences of others to aid him, but no ready-made answers supplied by others will turn the trick. The learner must, therefore, "create" his own solutions, and resources of the culture have no place in his curriculum apart from their practical utility in assisting him in this process. This is not to demean the value of the accumulated experiences of the race, but to claim that selection of knowledge from the content of the culture must be made in every instance in terms of instrumental value rather than intrinsic worth.

The classic model for the application of the problem solving method to classroom practice is Dewey's well-known formulation of the five steps of reflective thinking set forth in *How We Think*.²⁷ Dewey's approach has been widely adapted to classroom methods in a variety of subject fields and courses at all levels of instruction. Indeed, it has permeated educational thought to the point that in some quarters it is considered *the* exclusive method to be employed in all types of classes for all educational purposes. This seems to be the case in many of the more recent conceptions of the high school curriculum, notably in proposals for core or common learnings courses.

²⁷ John Dewey. *How We Think*. Boston: D. C. Heath & Co., 1933.

Few would deny that the conception of learning as problem solving has contributed much to the improvement of classroom practices. Relating curriculum content to problems of adolescents has unquestionably made learning more meaningful for large numbers of students. Furthermore, the focus on methodology has helped students understand that the manner in which goals are selected and the methods employed to achieve them influence markedly and directly the actual outcomes of learning. Most significant of all, the problem solving approach has helped foster in youth an attitude of free inquiry and exploration—an indispensable ingredient in the education of those who live in a society committed to continuous self-criticism and improvement.

For all its commendable features, the problem solving method as currently conceived is not without serious shortcomings. Wholesale application of a single rather formalized method on so broad a scale to all areas of instruction is currently being called into question on several counts. In the following paragraphs two questionable assumptions implicit in the problem solving approach as currently interpreted and practiced in many educational circles are discussed: (a) that the logic of the method (the scientific method) by which we develop new knowledge is necessarily the logic of the method by which we communicate knowledge already gained; and (b) that the method of scientific inquiry as systematized in the formal steps of problem solving is adequate to cope with all facets of human experience. These two assumptions will be examined briefly with particular reference to what they imply for the selection and organization of curriculum content.

Dewey's conception of learning as problem solving is derived from his analysis of the logic of the process by which new knowledge is developed. For Dewey, knowledge is always the outcome of deliberate, conscious inquiry, and he argues that the learner in his search for knowledge must go through the same general form of experience (scientific inquiry) by which knowledge initially comes into existence and by which it is validated. Thus it is assumed that the logic by which we develop new knowledge is necessarily the logic by which we acquire grasp of knowledge already gained. Stated differently, "acquiring" learnings is seen as a by-product of "inquiring."

The question now arises as to whether this method by itself actually takes account of the reciprocal relationship that must pertain between content and method. Is it conceivable that the communication of knowledge already gained through inquiry can take place through methods not identical with the logic of discovery? Specifically, is it not

possible to acquire command of concepts and generalizations by verification quite as readily as through initial inference? Cronbach, for example, has outlined the following elements in an approach to the development of concepts and generalizations²⁸:

1. Adequate realistic experiences to provide a basis for understanding. Such understanding can come only if the experience is reflected upon.
2. Formulation of generalizations in explicit terms.
3. Application of the generalization by the student to a variety of concrete or visualized situations.
4. Consideration by the student of systematic relations between concepts.

The procedures outlined here by Cronbach suggest that concepts and generalizations meaningful to students and significant for contemporary living need not necessarily be introduced to them through teaching procedures based on the logic of the scientific method. The new concepts and generalizations must indeed bear definite relationship to the students' own backgrounds of experience and must somehow or other make sense to them. Furthermore, it is essential that many opportunities be provided to apply the newly gained conceptual tools to situations of personal concern and social significance.

We turn now to the second assumption implicit in many current interpretations of the problem solving method—namely, that the formal steps of what is called the scientific method apply to all areas of experience and all types of learning. That this assumption is frequently made can be observed in numerous curriculum proposals that urge problem solving as *the* method of instruction in connection with a wide range of personal and social problems including such diverse items as learning how to get along with one's parents, dating, developing a set of values by which to live, planning post-high school careers, recreation, world peace, control of atomic energy, and relations with Russia. Reluctance to make distinction between modes of experiencing and learning appropriate to these varied problems and topics has led to certain questionable practices in selecting and organizing curriculum content.

There is by no means agreement among scientists as to whether or not there is a single all-encompassing set of procedures, even in the natural sciences, as is assumed by those educators who talk about *the* scientific method. Be that as it may, there seems to be little warrant for assuming that there is one overarching method sufficiently flexible and inclusive to deal with all aspects of human experience. All of life

²⁸ L. Cronbach, editor. *op. cit.*, p. 80.

and learning can hardly be considered a matter of solving problems in the sense implied in the formal steps of the problem solving method. There are modes of organizing experience other than the scientific and other ways for solving problems and meeting life situations. Conant, an eminent scientist and educator, objects strenuously to the "very dubious proposition that the methods of science are applicable to all manner of practical human affairs. . . . We must stress the significance of rational inquiry throughout our general education, but the identification of this type of inquiry with science confuses rather than clarifies the presentation."²⁹

Interestingly enough, Dewey has identified three rather distinctive modes of experiencing—the intellectual, the aesthetic and the practical.³⁰ While these modes of experiencing are neither discrete nor mutually exclusive, they are sufficiently distinctive to warrant our making certain differentiations in method and content when instruction is focused on one or the other of them. As a matter of fact, Edman, in an introductory essay to a collection of Dewey's writings, claims that:

They are quite wrong who misread Dewey as believing that reflective inquiry is all of experience or that thinking for the solution of practical problems is the whole of life. The function of thought for Dewey is instrumental, but it is a method for resolving the obstacles to the full and rich realization of life. Thinking itself may be a joy and it may help to establish or to re-establish the conditions of joy. But there are other aspects of life—"consummations," Dewey calls them—and these are to be sought where they are found: in love, in friendship and in art.³¹

Rather than forcing all of life and learning into a predetermined mold of a generalized, formal problem solving method, flexibility in adapting methods to purposes and problems in the varied facets of life and learning would seem to be indicated. The nature of the problem under consideration or the mode of experience that happens to be the focus of instruction in a given instance determines in a fundamental sense what method or methods are appropriate. The danger is great that rigid adherence to a pat formula may stereotype teaching procedures and unduly restrict the selection and organization of curriculum content, with the result that important and significant resources of the culture may be excluded from the curriculum merely because they cannot, by their very nature, be encompassed in

²⁹ J. Conant, *op. cit.*, p. 120-21.

³⁰ John Dewey. *Art as Experience*. New York: G. P. Putnam's Sons, 1934. p. 55-56.

³¹ From *John Dewey* by Irwin Edman, © 1955, used by special permission of the publishers, The Bobbs-Merrill Co., Inc. Indianapolis, Indiana: The Bobbs-Merrill Co., Inc., 1955. p. 33.

a single, "all-encompassing" method. No one method applied on so broad a scale is capable of doing justice to the varied types of curriculum content that are desirable and essential ingredients of a modern program of instruction.

Ready answers to the difficult problems of content selection and organization are not at hand. Increased attention to the development of analytical and empirical studies dealing with these perplexing problems is obviously much in order. This chapter has identified certain of the problems that call for intensive study and experimentation.

Foundations of General Education in the High School

George H. Henry

WHY DID WE not hear much about general education before the first World War? Does the word "general" (as colorless as it is) explain something about the task of education at this mid-century that the word liberal or academic cannot? It is the purpose of this chapter to examine these questions by exploring the meaning of the term "general" in general education at the secondary level. The inquiry is divided into three parts: (a) What factors have brought the general education movement into being? (b) What definable types of general education can be distinguished in practice? (c) What direction should general education take?

What Factors Have Brought the General Education Movement into Being?

The rise of the general education movement at this mid-century has been due to three factors:

1. There is the severe value conflict in western culture, of which our country is a part, that in the twentieth century has culminated in two world wars of European origin and in rival political forms like socialism, communism, fascism, and varying degrees of welfare democracy.

2. Then, too, there is the vast accumulation of knowledge that will not fall any longer into the "accepted" disciplines of the nineteenth century. This store of knowledge seems to defy a sorting of any formerly known kind; and yet it is still being spun off at such a rate that

"No matter how long or how intensive the schooling," as Harold H. Smith writes in *The Saturday Review*, "each generation will know relatively less per individual of the total cultural heritage than the previous generation."¹

3. On top of these comes the following pressing demand which grows out of our indigenous way of interpreting democracy in light of the past few decades of rapid technological changes: the extension of public education to all youth, and the use of education to make up for all manner of deficiencies and inequalities in both man and society.

The Value Conflict in Western Culture

The ultimate source of the unity of democratic culture itself has been variously conceived. Roughly, there have been two main camps. There are those who take the cohesiveness of a democratic social order for granted; and those who believe that the unity of industrialized democratic society, unlike a prescientific society, must be deliberately worked at or else it will fall apart in violence as it did in the Civil War, or will be welded by irrational or antidemocratic means as was done in Germany and Italy. Although these two views have clashed at various times in the form of conservatism versus liberalism, it was not until the twentieth century that they joined in endemic strife. At bottom this conflict accounts for most of the varied controversies in American educational writing today.

The Early Progressives and the Social Order

The early progressives took the continuance of a democratic society for granted. They therefore carried Rousseau's maxim that "all evil is the result of bad education" about as far as it could go in the late 1920's, and used it to bolster the waning rugged individualism of that inflatedly lush period. Let not the wicked forces of the environment, the imposed will of the teacher, not even the subject matter, said the progressives previous to the depression, interfere with the natural development, the free self-expression, of the child who, according to the Froebel variant of the doctrine, was the bearer of the evolving divine Will, and who unfolded as a rose does in the hands of a skillful nondirective gardener. Let the child grow in accord with "the universal trend of life," and the social order, it was assumed, would continue in the right way.² At the high school level this conception of

¹ Harold H. Smith. "Education and the Control of Evolution." *The Saturday Review*. January 8, 1955. p. 40.

² Friedrich Froebel. *The Mottoes and Commentaries*. Translated by Susan E. Blow. New York: D. Appleton-Century-Crofts, 1895. p. 58.

education met a tangled forest of subject matter, and seemingly the best way out for the times was the widening of the elective system, inaugurated at the college level by Charles Eliot at Harvard. This idea of electives was progressive in the sense that it assumed that the student knew best what was good for him, that millions of students pursuing their private drives and needs for self-expression would create a better society, just as, in the economic realm, unmitigated private enterprise was to bring about the same good life. Behind both these beliefs was a faith in Progress as a beneficent harmonizer of all kinds of self-expressions and self-interests.

This idea that social equilibrium could be left to Progress, coupled with a similar freedom given the specialist-teacher to create about any kind of course his interest dictated, and with it a pick-and-choose election of courses on the part of the pupil, practically cut education off from a concern over the nature of human society and the conditions necessary for its unity and its survival. Although progressive education, as well as traditional, in pre-depression days did regard the public schools as the bulwark of the republic, neither went so far as to seek a source of integration among the various subjects out of a concern for the preservation of democracy; neither asked what keeps a democracy alive.

General Education and the Social Order

Although Herbart in Germany, Huxley in England, and Parker in the United States, all before 1900, had tried better to unify knowledge for teaching purposes, education itself was not generally thought of as a means toward understanding how democracy is preserved, how it is best expanded, and what its necessary conditions are. General education, instead, became a way of putting order into growing knowledge, or of achieving better self-integration, or of helping youth be more sociable—which is to say, encouraging traits such as poise rather than shyness, mannerliness rather than uncouthness, smoothness and affability rather than self-intrusion. For these reasons general education emerged first as correlation and broad fields (the better ordering of knowledge) and then gained more significance by trying to bring together two seemingly disparate movements in education since 1900—(a) the search for a center of organization better to help the personal integration of the student (to provide for the unexpectedly wide range of individual differences), and (b) the effort to make

the curriculum more lifelike—that is, to bring the pupil closer to the contemporary scene.

Thus, general education at the high school level got off to a start with very little reference to the wellsprings of democracy or to what our national unity consists of; it depended more on the idea that democracy is improved as much by chance, by drawing out innate goodness, by enlightened self-interest, and appeals to brotherhood as by deliberate curriculum measures. General education, almost entirely psychologically based, saw no deeper social dimension than creating units on civic structure, social themes, problems and institutions. The correctives of the older subject matter organization—correlation, fusion, the problem method, the unit method—did not bring about much fundamental change in the total curriculum design: first, because the lifelikeness was thought of more in terms of descriptive content than in a search for the values that bind us as a people; and, second, because the Carnegie credit system which was originally designed to bring order to national curriculum chaos, eventually operated, ironically, so as to snip into segments whatever unity was left among the academic subjects.

For these reasons the fledgling core program, for example, has seldom had much real sociological underpinning. Its justification among its followers, even today, lies chiefly in the psychology of self-integration through socializing the child. Teachers generally have come to think of it as an arrangement whereby the student faces fewer teachers and takes fewer subjects so that more personal guidance may be given the student, and the ideas to go into the study may be better integrated on behalf of the student. This is, of course, all to the good. However, the social function of general education is more than learning to work in groups. If it is not more than this, general education appears to the inquiring layman to be a "fashionable educational gimmick," as some already are calling it. To some teachers general education is but another method in a long line of methods like the project, the activity concept, and the Dalton and Winnetka plans, to be adopted or dropped as circumstances, human relations, the desire of the principal, and the local community dictate. It becomes a victim of an unfair debate as to whether more subject matter is "learned" in noncore or in core; as if its continuance is a matter of measurement of facts or isolated skills. If it is not more than this, general education soon becomes little more than a makeshift for slow learners just as the vocational subjects are very frequently the dumping ground. "Lifelikeness" in general education is more than socializing youth in

the art of getting along, of being a hail-fellow-well-met. At the heart of "lifelikeness" is the aim of developing thought within a group climate that seeks to bring out the values the culture holds in common as a background for disagreements over issues and problems (not just talking over ideas or reciting)—a most exacting kind of "mental" discipline.

From our discussion so far, it can be seen that general education is a search. General education seeks to find the common elements that sustain our culture, and this objective becomes so important that even if the "core program" variant of it should die in a school, some similar plan by another name must serve in its stead.

General Education Since the Depression

The stock market crash indicated, said the branch of the progressives that launched *The Social Frontier*, that some mystic Regulator could not be relied upon to piece together all the millions of enlightened ("educated") self-interests into a concern for the common welfare. So the greater number of latter-day progressives hooked onto a definite social philosophy, if the Report of the Committee on Socio-Economic Goals of the National Education Association in 1931 be a criterion of their attitude toward education.

Although for a long time Americans had said that education is the bulwark of democracy, the conflicts generated at home by the depression and by threats to democracy from the outside shocked many educators into seeing what seemed to them the astounding intimacy between education and the literal preservation of democracy. At the same time Americans were aroused to the almost traumatic realization that government and economics are inseparable. From this time on, if the report of the Educational Policies Commission in 1946 be a reliable indication of the educational thinking of the times, education has been asked to assume a new task: it has had to give attention to ways of teaching youth to understand what keeps a democracy going.

As a result, the rise of general education is a recognition that there is no inevitable progress, that although a pluralistic, open society is better than one that seeks a mandate or a manifest destiny from a reading of history, a democratic society can retrogress, even pass away, or surrender willingly to a demagogue, a duce, a führer, a strong man, or to hysterical conformity in the name of specious forms of unity. Since the advent of totalitarianism in the world, both from the right and from the left, the main problem of education now seems to be: how to keep our democratic society open, individualistic, and

pluralistic, and yet not let it drift apart. Julian Huxley argues that there is no evolution worthy of man except intelligent, deliberate direction of the forces of life. Dewey, in his *The Quest for Certainty*, showed that this larger intelligent purpose is no more than that which man plans for through the method of prediction and control. Traditional education had generally looked back at what was thought to be the latent wisdom residing in the past, and was content to carry it on to the next generation. Dewey and his followers, however, believing that an open and pluralistic democratic society is not "natural" to man, invited our people to use the method of intelligence to look ahead to the fulfilling of calculated plans involving expected social goals. Man may be a political animal but he is not innately democratic. There is no more than a probability that a democratic society would "naturally" progress even when it used the best means at its command—scientific methods. A democratic people, if they are to maintain their democracy, must work hard to see to it that there are no voluntary groups sealed off from the others in society, and that each member within a voluntary group has an opportunity to share in all the benefits of such an association. Dewey, unlike Marx, avoided a grandiose collective plan to "insure" Progress, but he had a common process. Teaching this process was to be the main business of a school; this process was to be the basis of general education.

Social Function of General Education
(Unified Studies, Common Learnings, Core Program)

An understanding of the nature of our common life is hard to come by, and it would be derelict of a high school that is supposedly a citizens' school if it were not so arranged that pupils have the opportunity of exploring what it is that holds their society together. This quest, general education seems to say, is the supreme aim of the high school and is so important that it is not to be confined to a string of problems, a series of units, or a simple course. Rather, general education is to embrace a large segment of the curriculum whose purpose is to justify the remainder of the curriculum—the special and other subjects—and to give meaning to the life of the pupil as he becomes more and more immersed in the value conflict of our times. This is not to be done through a pat formula, or by indoctrination, or by group conformity, or by glorification of race or nation, but by helping the student to live the best life he can in a transition between two worlds, in a time of conflicting values within a democracy that seems unable to recognize its own weaknesses and strength, either because

of its prevalent materialism or the trained incapacity of its citizens to know its nature. This is more than mere adjustment to technology or to a group, or making satisfaction the measure of what works, or a "planned mediocrity," or a "training" for citizenship. General education is more than a sentimental appeal to reconstruct the social order, on the one hand, or the use of the high school as an instrument of foreign policy, on the other. But what does general education signify?

General education means that in an industrial age even an open-ended and pluralistic democratic society must be planned for, because freedom cannot be inherited by or given to any people. The citizen must come to see that freedom rests on no natural law, only in a people's deciding together that here and here they must do this and this. This is not of course a belief in totalitarianism or collectivism but in the democratic alternative that our social system must be constantly studied. In *Freedom, Power and Democratic Planning*, Mannheim says, "The fundamental dilemma of our age and the predicament of man should come within reach of all levels of education. Our society can afford diversity of training and specialization only if we constantly seek to broaden and deepen our common educational groundwork."³ It is interesting that the report of the Commission on the Reorganization of Secondary Education in 1918 (*The Cardinal Principles of Education*) said almost the same thing: "The greater the time allowed for curriculum variables, the more purposeful should be the time devoted to the constants." Unfortunately, this aspect of the report was not taken seriously by the American high school.

Until recent times community life has been largely unconscious and spontaneous in its rationale, by virtue of folkways, mores and tradition. Today unity of this sort in an industrial democratic society cannot be entirely relied upon; it must now be built largely through intelligence. This is the ultimate task of general education. Because this search for unity cannot be done within a single subject or a combination of subjects, this task requires newer integrative threads to hold the curriculum together than the organization peculiar to separate subjects.

General education thus is an attempt to use knowledge to humanize the pupil rather than to create new knowledge. "Common learnings" should help the student answer for himself such basic questions as the one young Private Graeber posed in Remarque's novel, *A Time to Love and A Time to Die*, when he stated, "I would like to know

³ Karl Mannheim. *Freedom, Power and Democratic Planning*. New York: Oxford University Press, 1950. p. 257.

how far I am involved in the crimes of the last ten years." To this one might add the words of James Farrell, "... in a world I never made." This type of inquiry is a far cry from "paint up, fix up, clean up" all without an analysis of the values involved in the task; or from immersing pupils in "listening, observing and participating," without endeavoring to increase their skill in making critical generalizations; or from the manipulation of pupils' attitudes as measured by sociograms. As educators, we ourselves seldom ask just what relation the classroom has to the vast "doing" that we devise for pupils. Evaluation and activity are rarely put together; the extracurriculum program and classes are divorced. Class is strangely unreal; the Junior Prom all *too* real! Unless out of such activities a youth can be led to seek answers to the above questions, and to make not just his own community but the larger moral community his own life-space even the more recent community school idea as a form of general education is doomed to triviality, mediocrity and materialism.

Social Unity and the Community School Idea

The community school idea, which is usually advanced as a way of correcting the weaknesses inherent in the child-centered school of the early progressives, has so far got along without this kind of general education based on a search for common values. It has, of course, knit schools more closely into the social fabric, and its emphasis on improving the standard of living and the quality of the living of a community rightfully presupposes that there is a close relationship between material prosperity and the rise of genuine culture. The rise and the fall of cultures throughout the ages prove the point again and again. But to reason that education is "a great investment," that to be educated is to want more, that more and more wants create prosperity, and that prosperity is a condition of the good life, is to erect education on a shallow social foundation. In the main, therefore, the case studies of the community school idea are nearly all drawn from materially depressed regions, while "spiritually depressed" suburbia is often held up as a model of democratic living by some educators simply because of its willingness to pay high taxes for schools to perpetuate its own dubious values, which they frequently identify with *the American Way*.

Ironically, many of these suburban high schools that work so closely with their communities and hire the highest-priced teachers and spend the most money for extra services are devoting the least time to considering who puts the "order" in the social order. Such schools are giv-

ing little attention to helping students perceive the basic values of their culture, to helping them become sensitive to the concept suggested by St. Augustine in *The City of God* when he wrote: "A people is a multiple of reasonable creatures conjoined in a general communication of those things which it respects, and to discern the state of a people you must first consider what those things are." General education in gadget-loving suburbia should begin, therefore, where the pupils are: it should begin by helping them see just what things in life they now respect most, which would mean, in turn, the distinguishing between a want and a need; in suburbia the needs theory of educators fades all too easily into the wants theory of business prosperity. The community school idea, if it is to be saved from piddling "service projects," must have a general education program steeped in a study of values larger than the community itself.

We educators are just beginning to realize what kind of colossus the American people have brought into being. James B. Conant, when president of Harvard, referred to our school system as a "vast engine which we are only beginning to understand. We are learning only slowly how to operate it for the public good."⁴ General education is a deliberate curriculum program to help youth understand the meaning of this public good—the "public" amid private enterprise and the "good" amid competition.

The Vast Accumulation of Knowledge

But general education as a search for the source of unity in a democratic society will be confronted by two curriculum obstacles: (a) the present organization of the high school curriculum runs counter to it; (b) the social disciplines and the humanities that create the subject matter for the high school curriculum are themselves in an amorphous state.

Responsibility of the High School Subjects to General Education

The over-all high school curriculum is not now planned in such a way as to guide youth in the quest for that "unity without which," says Boyd Bode, "life for the pupil can have neither dignity nor seriousness of purpose." No subject in itself will make itself responsible for the kind of curriculum unity essential both to the student's mental health and to the cohesiveness of the social order. None of the subjects, it

⁴ James B. Conant. "Education for a Classless Society." *Atlantic Monthly*. CLXV, No. 5; May 1940. p. 600.

appears, will work cooperatively with another, each maintaining itself not only by what it calls the inner necessity of its ideas but also through national organizations, each one trying to keep its sovereignty when literally the boundaries of each are becoming more artificial, and each having no longer even at the scholarship level a theoretical framework to hold it together or to preserve its identity. Each of the subject matter areas has come to the stage of its development where any more improvement of its declared subject area in the name of pedagogy has reached the point of no return. Year after year subject matter specialists go on refining their offerings, putting in and taking out, revamping now here now there, reworking guides; but a consideration of how their subject may relate to another or of what their place in the total curriculum is, or what the total high school curriculum ought to be like, is seldom entertained. If subject matter specialists and supervisors did ask such questions, they would see the stark inadequacy of nearly every form of general education in the American high school—and that they are partly the cause of it. More specifically, they would observe the melting down of subject matter from subject to subject, all with little plan or purpose. A unit on health, for instance, may be found almost anywhere—in home economics, physical education, biology, problems of democracy, in English. So with family living. And who knows today what English is: it may be a unit on safety, family life, manners, *Macbeth*, newspapers, conservation, *Silas Marner*, folklore, romanticism, or human relations. It is about anything any school, any teacher, any pupil wants it to be. And so also with social studies.

Origin of the Subject Matter Used in the High School

Those educators who would entirely emancipate the high school from the college and the university may be justified in respect to college admission requirements and in behalf of better terminal education for the majority of high school pupils. Yet they must see very clearly that the high school cannot be completely severed from the college, that its destiny is wrapped up with higher learning even when educating those not bound for college.

A high school course, no matter how functional in purpose, can be no better than the authenticity of the ideas that go into it. The appropriateness and quality of these ideas for "meeting a need" must be guided by the research and the scholarship struck off in our graduate schools. And these in turn must be put into an accessible setting

—that it, in a clearly perceived framework—for the teacher if he, as nonexpert, is to become sufficiently acquainted with them so that he might use them functionally. Because those in research are not generally tying up their findings into frames of reference so that what is known is, pedagogically speaking, readily procurable, the high school subjects are, as we have seen, fast losing their integrity as subjects, and even traditional teachers are having trouble finding the logic in the “logically organized” subjects.

To the functionalists, to whom, it would seem, this condition would make little difference because they reduce the social studies to a series of problems, the college subjects are in many ways now in a worse position to offer help than they are to the traditionalists. For example, the problem method, which by its nature is to cut across subject matter lines—that is, across organized ideas called psychology, anthropology, economics, sociology, etc.—depends for its success on the capacity of the teachers working within it to guide the pupils to pick the best and most appropriate from these fields for their purposes. Each of these areas, however, is too vast and too loosely held together for most specialists in the field to know their way around in it, let alone the high school teachers. The following suggestion to the teacher from M. S. MacLean and E. Rauschenbusch to go functional sounds logical enough:

The students will there learn early that knowledge does not exist in departments but is put there by curriculum makers, often to assure teachers of a private preserve. Students need to draw on the resources of anthropology, sociology, psychology, and biology often together and at the same time for explanation of some of the aspects of human behavior; and the curriculum of literature, philosophy, and history together will illuminate the discussion of an economic problem.⁵

But the unsuspecting teacher soon learns to his dismay how each of these fields or “resources” referred to is itself replete with rival theories and unconnected ideas, and is laden with contradictory research studies, competing ways of organization for course construction, and hosts of unassorted, inert facts. L. Ross Cummins in *School and Society* keenly analyzes the situation: ⁶

Both within and among the professions [disciplines?] there is controversy ranging over several dimensions. Theistic or humanistic (or scientific),

⁵ M. S. MacLean and E. Rauschenbusch. “General Education for Students.” *General Education*. Fifty-First Yearbook of the National Society for the Study of Education, Part I. Chicago: University of Chicago Press, 1952. p. 183.

⁶ L. Ross Cummins. “The Helping Professions: An Intergroup Relations Problem.” *School and Society* 80:164; November 27, 1954.

Freudian or Rankian, directive or non-directive, and "who has the right to do psychotherapy?" are illustrative issues and points of conflict.

The nonspecialist teacher, who simply cannot know all these fields well enough to separate the wheat from the chaff, the authentic from the archaic, the best from rival theories, is having trouble with the experience unit and the problem method. There is a great deal of difference between "majoring" in a field and knowing the field. For instance, in his text for teachers, Wesley takes great pains to distinguish between the social sciences as organized disciplines for research purposes, and the social studies as the organization of this material for teaching purposes.⁷ If the former be in the shape just described, the social studies teachers in high school cannot help being in grave doubt as to how the social studies should be more specifically used to help solve adolescent problems or be drawn upon wisely in a core program.

This realization, of course, should not lead to defeatism at all. The job must be faced despite the present condition of knowledge. It but calls attention to the staggering task inherent in the functional approach; it launches a skepticism about any group of teachers making units on practically anything, based perhaps partly on knowledge that may be already in disrepute among authorities. The traditionalists who would return to the logic of the disciplines are in the same boat; the logic is no longer there. Herbert Spencer in his day asked the question, "Which knowledge is of most worth?" Robert Lynd before the last war put it thus, "Knowledge for what?" It looks as if we must now phrase it, "Whose knowledge for what?"

The Crisis in Subject Matter

In an earlier time the disciplines referred to in the quotation from MacLean and Rauschenbusch might have been more immediately useful. Each of these disciplines, having just broken away with alacrity and optimism from its parent, philosophy, was hoping to systematize more and more its newly staked-out claim. Within a hundred years each was as embarrassed by its own plentitude as the economy was, too, by the overabundance of wheat and potatoes. Today, each one has trouble deciding even what its general phases are, and not a few course makers and not a few text makers are in a quandary not only over what to select from each to make a course, but how to arrange what they do select. As early as 1820 Herbert was one of

⁷ Edgar Bruce Wesley. *Teaching Social Studies in High School*. Boston: D. C. Heath and Co., 1950. p. 34.

the first to make the point that the creation of history was no more the duty of the historian than was his responsibility to compose it for the purposes of teaching it. Today, as C. Wright Mills says, "Systematization of facts for the purpose of making them accessible to collegiate minds is one thing; systematization which is oriented toward crucial growing points in a research process is quite another." Of this condition Dexter Keezer, president of Reed College, writes, "by the process of concentration on the development of its (knowledge) various parts without relation to the whole, we have inadvertently put together a world which defies human understanding."⁸ And Joseph J. Spengler writes, "we must discover the unity that exists even in present-day diversity and allow this unity to infuse our curricula."⁹ All this of course is a description of the present *traditional* curriculum. General education is an attempt to do something about this condition.

All this is happening to subject matter when the demands upon it, in the name of mass education, are greater than ever! How to organize ideas for the purpose of meeting these demands, given the present chaotic state of the parent disciplines that feed the high school subjects, is one of the crucial problems of the general education movement.

How Our Native Ideas of Democracy Are Influencing General Education

The ideal of democracy that has brought about most of our curriculum troubles may be stated somewhat like this: The right of all to be educated at the secondary level at public expense follows logically from the right of all to vote. In an earlier time, when by act of faith in the rationality of man the right to vote was conferred on every man, though he had neither property nor learning, there was no way of foreseeing what kind of democracy this would eventually lead to. Similarly, at a later time, when by act of faith in the educability of all youth, whatever the range of their physical condition, their talent, and their interest, all youth were invited to participate in secondary education, there was no way of foreseeing what kind of education this would lead to. When we inaugurated a universal, public secondary educational system, there was little to indicate what

⁸ C. Wright Mills. "The Professional Ideology of Social Pathologists." *The American Journal of Sociology*. September 1943; Keezer, Dexter, Merriam in *Learning and Living*, ed. by Walker H. Hill. Proceedings of an Anniversary Celebration in Honor of Alexander Meiklejohn. Chicago: published by the editor, 1942. p. 6.

⁹ Joseph J. Spengler. "Undergraduate Teaching of Economics—Discussion." *American Economic Review* 36: 861; May 1946.

the range and nature of individual differences are and how this range would affect our schemes of administering and organizing the learning.

With the great influx of youth, the grade system that seemed so "logical" and so "natural" in handling the then-known growth and development of youngsters broke down. The varying rates of individual development did not fall into the one-two-three . . . ten-eleven-twelve pattern. To find an answer, in seventy-five years we swung from individualized progress charts and the acceleration of pupils in grades, through all kinds of grouping, to "social" promotion. Now the functional approach is offered as the latest attack on the problem of mass learning; some mistakenly think it demands less abstract thinking. Under the section called "The Vast Accumulation of Knowledge," when we described how high school subjects were fast becoming all things to all men, we did not point out another reason for the breakdown within the grade system: nearly all the grades, from the freshman year through the senior, in respect to the level of attainment in all studies, the arts, the general courses, and particularly English, tend to run together. Many seniors are doing freshman grade work; many freshmen do senior work. A sophomore year does not indicate the standard of work done. No English teacher knows, for example, what standard work for tenth-grade is or even what reasonably to expect in terms of a pass-or-fail standard. From what is known of the way youth develop, psychologically speaking, in the face of an infinite array of human capacity and potentiality in myriad combinations sitting in the classrooms, there can be no firm standards of accomplishment.

And yet, in a technically specialized society, as a protection to us all, there must be proficiency. In former years our insistence on the primacy of the three R's we considered in part to be the basis of such protection. But when, as research shows us, emotional factors block success in these so-called fundamentals, and when social conditions have been found to invade the IQ, to influence achievement on "standard" tests, and, as Havighurst reminds us in analyzing the President's Report on Higher Education, even to condition motivation for learning,¹⁰ there appear even more basic factors behind these fundamentals. When our people are distressed by corruption in very high places among the technically superior (the "well-schooled"), again one is led to reconsider what the fundamentals of learning are in a democratic society. Society, it appears, must be protected from more

¹⁰ Robert Havighurst. "Social Implications of the Report of the President's Commission on Higher Education." *School and Society* 67: 257-61; April 3, 1948.

than incompetency; it must be protected also from neuroticism and corruption. Since knowledge is power, the technical elites are more potentially dangerous than the ignorant. This profound revision in our idea of the fundamentals is at bottom the cause of much confusion as to what ought to be taught in a high school as general education and how it ought to be taught.

This revision of our idea of the fundamentals, together with a lack of sensitivity to the problem of individual differences, has created an interesting interplay among the high school courses, of whose devious fluctuations few faculties are well enough aware to study their total impact. In nearly all the high schools of the country there is an exodus of pupils from certain subjects and a pressuring to get into certain others, and at the same time a constant improvisation by teachers in selecting subject matter within old course labels to accommodate these migrations. In the main, there is a noticeable decline in the study of algebra, geometry, physics, chemistry, French, Spanish, and special shop courses and an increase in "general" and "practical" courses. (See Chapter III by Kenneth Hovet.)

This movement serves but to call attention to an often unseen yet widening fissure in the curriculum: a group of subjects, each endeavoring as best it can to organize itself around the consistency of its ideas, and another group of subjects in the same school carrying the same labels, giving the same credit, but organized in their general phases around social issues or concerns of youth. English III, in one case, might be a survey of American literature and in another some "free reading," a study of manners, boy-girl relations, and a probing into prejudice. There has been little theorizing about the place of the two in the same curriculum, how much of each kind all students should have, and to what extent they are related.

The upshot of this shifting among the courses is that, according to some critics, the offerings of the high school are steadily being watered down. To water down has the connotation of dishonesty in the sense that a milkman may be selling skimmed milk in the place of the regular brand. But if a customer with gall bladder trouble needs skimmed milk and frankly buys it as such because it is good for him, then watering down has a good connotation. In this latter sense the courses of the high school have, in the main, been watered down. Where, however, we can legitimately quarrel with the advocates of life adjustment is not in the "watered down" content they propose but in the watering down of the idea of practical to the immediate and to moneymaking. Haskyn analyzes the spuriously practical in this way: "Work pro-

grams are not automatically 'real,' 'practical,' or anything else. They can be open to all the accusations ever leveled against the classics."¹¹ And Gates observes that "Mere provision of real or concrete experience is no guarantee that learners will be provided with an easy avenue to significant insights and concepts."¹² The practical has two uses: to learn concrete skills as part of the mastery of an adaptation required by a task or job; to learn the doing of a process in order to understand fully the meaning of it. The one too often becomes confused with the other. The vocational is thus not to be pitted against the general. It can put vitality into the general; it can be a ready avenue to the liberal; it can provide a referent for the study of values. Yet not understanding this, practical minded educators in the past decade have condemned hundreds of thousands of American youth to second-class citizenship. A study by a youth of the paths that lead to delinquency is just as practical as hammering and sawing; or, put in another way, general education is taking place when through a boy's interest in hammering and sawing he is eventually being led to a consideration of the place of carpentry in a mobile class system, unionism, a standard of living, and happiness itself.

Put in another way, are the general courses being made so practical and "lifelike" that they do not allow pupils to cope with the value conflict in our culture *at their level of comprehension* or come to some realization of the larger moral community *at their reading level*? This exodus from the more abstract, logical, value-laden subjects—when hot and cold war has just been waged over differing abstract ideologies—does it mean that in our democracy would-be executives are to have one kind of humanity and assembly line workers another? In some large high schools there is an academic course for the bright, a vocational for the less than bright, and "general education" for the "slow." What is being done to show them all their common humanity? This is what general education genuinely conceived is for.

Types of General Education

Because our democratic society can no longer take its survival for granted as it has been doing for one hundred and eighty years; because the accumulation of knowledge is so vast that we can no longer continue to add subjects to the curriculum with any sound reason or can no longer contain this knowledge within the subjects we do keep; and

¹¹ F. P. Haskyn. "Work Experience: Basic Issues." *Curriculum Journal* Vol. 14, No. 1; January 1943.

¹² Arthur Gates. "Language Activities as Experience." *Teachers College Record*. May 1953.

because in our zeal to educate all manner of youth we have found no suitable way to grade all pupils on a year-to-year basis, or to organize subject matter and activities suitable for all of them—for these reasons, all kinds of schemes for general education have come into being.

General Education as Subjects Required of All Pupils

First, there is the meaning that the constant or required subjects are general in that they become the common subjects. This is at present the most prevalent type of general education in the American high school, because on the surface it seems to be the easiest kind of general education to provide. But this program of required subjects, because of diversification of subjects and pupil election, has been reduced by an unconscious historical process to what many would call the danger point. The moment a faculty, realizing this, decides to step up the number of constants, it is soon aware that this must be an organic, not an additive, process. By way of illustration of what a faculty is up against when it tries to rearrange the twelve units of the senior high school in order to increase the constants in its three main divisions, we may have something like this: English (3 units), social studies (3 units), science-mathematics (3 units).¹³ This allows but three electives, and if a foreign language or more mathematics be part of general education, practically no electives. Merely to increase the number of units for graduation would be, of course, fragmentizing the curriculum further. To correct this, there would have to be some sequence in each field from year to year, and some planned relationship among the three large divisions. This kind of planning has seldom ever been reached by any high school faculty.

If, instead, the presumed inherent logic of each traditional subject in each division be relied on, a faculty today is confronted by the fact that there is no longer much inherent logical relationship *among* the traditional subjects even within a field. For example, among the sciences of biology, chemistry and physics—although each may be made compactly logical in itself—there is little unity except what some very well-educated science teacher with the aid, perhaps, of the Foundation for the Integration of Knowledge or the Encyclopedia of Unified Science is able to detect, for this unification happens to be the Eldorado of the scientists themselves. Just what logic there is to

¹³ In some schools the English at each grade level is differentiated to such an extent that although all pupils take English in common, the sections have little in common in respect to human values. Academic English I, for example, may be quite different from general English I or vocational English I.

hold the social studies together, except for the chronology of history, is often anybody's right to invent. And as for the language arts, surely there is no logic that knits up any year of English study, and no logic between the grade levels, although a literary form like a poem or a novel may have a logic of its own. In science, in contrast, the teacher must bow to the logic of the particular subject; in literature the critic (who may be the teacher) creates his own logic, and helps the reader (the pupil) create his own, too.

What complicates the task of organizing a subject that is to be a constant in all courses is that differing methods of teaching have their own manner of logic. For instance, in the strictly traditional approach the ideas to be learned are laid out ahead of time, and the pupil working with these is to understand what generalizations hold them together. In the experience method the logic lies in the relation between means and end, which, in spite of the fact that the goal set up by the pupils may be achieved, may not be understood by the pupil going through the doing unless he perceives while he works what binds the means to the end. In the problem method the logic lies in gathering data relevant to the testing of the hypothesis, and its deductive phase requires skill in sequential thinking and the arrangement of ideas into relevant patterns. In the unit method, in the main, the organization of ideas is supposed to emerge as end product of an inquiry, and one phase of the culmination of the unit is the *ad hoc* arrangement of the subject matter into generalizations by the pupils themselves for all to see just what it is they have been through (learned).

A faculty must avoid, too, the way out taken by the Committee of Ten in 1890, when already general education was so broad that it merely sorted out the many required subjects into multiple tracks like academic, scientific, English curriculum, etc. What the Committee of Ten did not know that we now know is that general education is not a matter of chopping up knowledge into tracks of subjects and then allowing the pupil to select one of these tracks, thus allowing the overlapping subjects to be the common learning. General education, rather, is a rearranging of subjects around integrative themes cutting across the tracks and translating these into social issues stemming from the value conflict.

The vocational tracks added after 1890, like commercial and agricultural, from their beginning bore a different relation to general education than did the academic. For centuries, the classics were conceived of as the carriers of general education; the former, as newcomers, were

thought of as specifically supplementary, not essential. To say, as some do, that the academic is special preparation for a profession in the way the vocational subjects prepare one for a job is not true. Rightly or wrongly, since 1890 a few academic subjects surviving from the classical course were serving as general education after the inroads of the elective system, for little else has been seen fit to replace them. Actually from around 1890 on, some form of general education was not considered necessary for all pupils mostly because the stability of our society was supposed to lie almost completely in a permanently viable Constitution rather than in a school system as well, that gave all pupils an intelligent understanding of the "rules of the game" behind the Constitution.

The academic course, thus, is archaic not entirely because it is severely fragmented into discrete subjects or because it has been reduced in purpose to only a way of getting into college, but because as general education its total of required subjects is not broad enough, not vital enough, not relevant enough to recent events or, in particular, not in harmony with the vast amount of knowledge now available for instructional purposes. At present, since a few academic subjects common to all course tracks are serving as both general education and as courses in their own right, the word *academic* is a stumbling block to most curriculum revision toward general education. As a *track* it is not needed even to prepare for college.

General Education as a Reduction of Each Subject Field to Manageable Size

As said before, since increasing the number of required subjects while leaving their internal organization intact involves hardly more than a slight structural or administrative change in curriculum design, it seems the easiest and the most direct way of creating general education. But this merely leads to a more general fund of knowledge, which is not, of course, general education. Ironically, a structural change—lengthening or doubling the periods—is more difficult to bring about than revisions in the outlines of subject matter. Therefore, as a rule when a conscientious faculty is concerned about the slender common learnings of its school, it keeps the number of required subjects and allows the many subject matter departments to search for the core or essence of their subject fields to be taught instead of to increase the constants.

Although this is a more fruitful procedure than the older type of subject matter revision, which merely altered a syllabus of study, it

seems to assume that several discrete "cores" or generalized subjects existing side by side will be an effective pattern of general education. This internal revision of each subject has come to mean a search for the generalized content or heart of each vast resource field so that it can better be organized for teaching purposes, whether to be presented traditionally or functionally. Since there have been but few attempts by an official body of scholars or of laymen to state what this essence of each subject field is (few schools have felt the urgency to accept the reports of the various national councils or those of the Progressive Education Association—*Language in General Education*, *Science in General Education*, *Mathematics in General Education*, etc.), the individual teacher usually decides it for himself or with the aid of a department committee, or a state syllabus committee, or of a textbook. This means that the general phase of each subject field may vary greatly from school to school, and thus may invalidate it as a carrier of the common democratic symbols. What goes into this general approach is, of course, dependent both on the teaching materials at hand, and, as was shown in the section, "The Vast Accumulation of Knowledge," on the "conceptual health" of the parent discipline from which this general approach is drawn.

But drawing out the general from a sprawling discipline only defines the scope from which the ideas to be organized for the purpose of instruction are to be selected. When this is done there still remains the question, "What in this general area is necessary for a citizen in a free society to achieve?" The schools that take these steps toward this kind of general education take for granted that the very few "generalized" subjects all the students now have in common among the various courses they choose from are sufficient to do whatever it is believed general education is to do. The faculty therefore often fails to revise the total curriculum design, which requires a more thoroughgoing revision, as we shall see, than the internal revision of each subject separately within a department.

Recently there have been several very good articles and books like *Art in General Education* by such men as Howard Mumford Jones or Earl McGrath or Ernest Ziegfeld; *Economics in General Education*, suggested by the Joint Council on Economic Education; and like *General Mathematics in the High School*, of the Wisconsin Cooperative Educational Planning Program, and others. These statements obviously do not come to grips with the curriculum problem of what to do with the congeries of general subjects thus created. But the statements do give the teacher a secure base of operations from which

to work within his special, yet still sealed-off, domain of knowledge.

This second type of general education differs from the first in that the first type would increase the number of required subjects, and thus "general" means that more pupils would have more of the same subjects and hence more knowledge held in common. If it revises the subjects at all, it does not seek the essence of the subjects so much as it hopes to outline the subject with better logic.

The second type of general education would retain the present number of required subjects as adequate, but would lay out the essential and unique elements of each vast field as a resource to make the teacher more secure in drawing on the knowledge he uses for his purposes.

General Education as a General Course for "Average" Pupils

The movement of the course subjects from academic to general to practical that we described under our third factor influencing the rise of general education is often tolerated on the assumption that there is a general or average pupil who needs a kind of generalized instruction. There is the belief that this kind of pupil can do neither the more or less logically arranged academic subjects nor the vocational subjects requiring complex muscular coordination. It is coming to the point that in many schools this group of pupils so defined comprises about half the student body. There is underfoot a search for suitable subjects for this group, as is described above, but more often a number of the stock academic subjects like English, algebra, history, are used as "stations" for receiving the throng, in view of the fact that new subjects have not been created for them. Few faculties care to embark on general education by stepping up the number of required academic subjects, as this entails a thorough-going revision of the idea of academic. Similarly, a reduction of each subject field to its general aspect (our second form of general education) has been fairly well confined to the making of teaching guides on paper. Few schools, therefore, can do much more for this mythical general pupil than to patch up a schedule of odds and ends that the pupil can "get into" his schedule, and then *ad hoc* call it a general course.

Other schools, more sensitive to the "dialectic" of the courses, deliberately set up a three-year track called the general course. It consists usually of a large number of electives, bits of several vocational courses, a dip or two into the academic, maybe in the second

homogeneous grouping—all of it a sort of mixture of academic, generalized, and vocational subjects. Mostly this program is a miscellany, and becomes obviously more fragmentized than the academic.

Even when a school puts in such a general course as general education it is still confronted by all the trying problems centering in what general means and what is practical, and how the pupil may be humanized by concrete “lifelike” projects, and how reading material low in comprehension but rich in spiritual content may be procured.

The creation of an elective general course for *only* a certain group of pupils, although it may come about through an awareness of the inadequacy of the present academic course for most of the pupils, is the most distinctive failure of a school in respect to general education. Above all, to use a general program entirely for slower learners is a travesty on general education: it shuts off the brightest pupils from what they need most—an understanding that the common good can be attained only by working with all manner of people, and it excludes the dull from the inspiring contagion of the more gifted. It is good for the dull to learn the pathetic weaknesses of the gifted and the gifted to learn the humanity in the dull. Besides, the intellectually gifted do not invariably make the best leaders or even become leaders. If at bottom general education represents “The breakdown of the isolation of school from society, of book learning from vital experience, of the individual from his environment,”¹⁴ then it would be a debasement of general education to make the gifted into high-powered specialists and the average or dull into “generalists.”

General Education as Well-Roundedness or Versatility

To still other educators general means any array of courses that can help a youth explore a wide range of experiences at his maturity level. This requires a host of electives and a planned selection of subjects by the pupil under an expert counselor. This would entail a rather full study of the pupil, the revision of many courses so that their subject matter may be used for self-integration, and especially a cross-fertilization of the vocational and the general. A brilliantly conceived plan along this line of general education is in effect at Highland Park High School, Highland Park, Illinois, according to a description by Ander-

¹⁴ Irwin Edman. *John Dewey*. New York: The Bobbs-Merrill Company, Inc., 1955. p. 28.

son, Grim and Gruhn.¹⁵ The constants are few, the range of the electives is exceedingly broad, the pupil is deliberately guided toward what the faculty calls the goal of well-roundedness.

But the weakness here is that "general" is often confused with distribution of subjects, and distribution with well-roundedness. If these electives are not taught with some sort of goals of general education in mind, few common values will emerge, and unless the electives are functionally organized within and among themselves, spread, or distribution, may not lead to all-around development at all but to miscellaneous assimilation. Greatly increasing the electives in order to gain versatility and all-around development seems to be carrying the election principle far beyond even its original purpose. It certainly takes the unity of both the school and the social order very much for granted. For instance, a school might thus turn out a breed of versatile citizens, at home in the arts, in sports, and in social affairs, yet unaware of what such participation means and of their own goals of life, actually, at times, being guided by antisocial motives. Laudably enough, this idea of general education has breadth of experience, but variety is not the same as wholeness; a pupil may engage in a whirl of activity, even art and music, and yet his affective side remain unstimulated. This kind of program often leads to a butterfly hopping from activity to activity and a treadmill of doing, if there is no place in the curriculum for a critical self-examination as to the meaning of it all. These "extra" activities are seldom planned in relation to classroom procedures despite the fact that the "extra" in extracurricular activities has been euphemistically changed to "co." As a result, the pupil tends to be happy only to the extent that he is steadily "active."

Theoretically, all schools would like to believe that each pupil's schedule is custom-built to his needs, capacity and aims. However, lacking functional courses, integration among subjects, and a conscious theory of general education, this kind of general education may be thought of as romantic individualism, but it is a welcome antidote to a too-early and a too-severe specialization in high school.

General Education as General Method

The idea of general education is often centered in a general method that may run through all subjects. The unit method and the problem method, each cutting across subject lines, have been resorted to by

¹⁵ Vernon E. Anderson, Paul R. Grim, William T. Gruhn. *Principles and Practices of Secondary Education*. New York: The Ronald Press Co., 1951. p. 132.

many teachers, whatever their subject, particularly when there is no over-all curriculum plan in their schools.

The unit method, built around a theme or issue or an experience, to which each pupil contributes according to his talent and his capacity, is an easily interchangeable segment of a course or subject and permits a "general handling" of all kind of pupils and a more diverse subject matter, either within the most traditional curriculum pattern or the most radical teacher-pupil planning. General, in respect to the unit method, is an attempt to combine the emotional, the cognitive, the behavioral, the attitudes, and appreciations into a single unit of experience. It is a method that presumably involves the "whole" organism. In that the experience unit has a launching, a movement and a culmination, is organic, and admits group work, each pupil contributing according to his ability, it has a place in general education. A subject made up of experience units tends to fall into discrete fragments of experience, and thus the Gestalt principle of part-whole learning may be violated unless the unit be tied up with past units and future units by larger concepts clear to the learner. The very ease of tucking a given unit into any subject one may happen to be teaching, prevents a faculty from looking at the total curriculum. The price of this flexibility in curriculum revision, of taking out and putting in units anywhere at all, is the melting down of subjects referred to previously, making course labels superfluous, without any principle of integration.

The problem method in education came into prominence when there was a search for a universal method of intelligence—the scientific method. It was Dewey's genius to bring together in the reflective act the reasoning power of man as revealed in the scientific method, his biologic function, and the then-known activity or project way of teaching. It was general in the sense that it supposedly represented the complete act of thought, drawing in the whole organism, and not being confined to any one discipline. While this method is a decided improvement on Herbart's steps and Morrison's mastery principle, it is not as much a bearer of the "general," even as process, as was once thought. For there is no general method, even in science. Says Znaniecki, ". . . Dewey studies the kind of thinking typical of technologists, treating it as representative of all scientific thinking."¹⁶ Besides, the problem as such takes for granted the values in which it is embedded; and it does not enlist the whole self, in the sense that the

¹⁶ Florian Znaniecki. *The Social Role of the Man of Knowledge*. New York: Columbia University Press, 1940. p. 168.

problem does not commit the "heart" of the pupil to what the solution calls for. The difference between the neophyte and the scientist is not entirely the greater skill in the use of the process; but the fact that the expert is drenched in subject matter, so that he can create a more insightful hypothesis, and is able to interpret better whether the hypothesis has been proved. The process is just as good as the stock of generalizations (subject matter) one is able to bring to the indeterminate situation.

As necessary as the problem method is to general education, it cannot be the sole bearer of general education.

General Education as Common Product or Common Outcomes

Because of these diverse interpretations of the general, some educators take a way out by claiming that "after all" there are many avenues to a common product; general education then is looked for in the common outcomes, or, according to Wynne,¹⁷ in qualities of experience like creativity, critical thinking, clear expression, social poise, etc. Every subject, whether art, science, or English, should be so taught, this means, that these qualities of experience are to be its aims and be the measure of every pupil. If every teacher were to have the very same goal of developing pupils in respect to these qualities, and were to marshal the ideas and practices of his course in order to foster these qualities, then we would have a form of general education for all—and unity in the curriculum. General education, thus, is thought of as the creation of a character type, especially the democratic personality. This kind of general education has an honorable history. John Locke thought of the British public school as creating the gentleman type—even the playing field, the dining hall, as well as tightly organized subjects, contributing to this end. The church school, by means of daily worship and morally slanted content, has continually claimed the creation of a "good" moral product; and the military school, according to the advertisements, boasts that by authority and obedience it creates the "manly" type. The recent *Harvard Report*, by means of divisional constants taught by free teachers, would aim for the democratic citizen type.

This extreme tolerance for all kinds of content and method, so long as the type is striven for, countenances a loose relation between method

¹⁷ John P. Wynne, *General Education in Theory and Practice*. New York: Bookman Associates, 1952. p. 48.

and outcomes. Also, an evaluation of the pupil in behavioral terms, which by definition this form of general education has the responsibility to do, is often very much ignored. Its chief weakness is that in permitting such a wide diversity of means, it invites instructors readily to rationalize any type of teaching, even the minutest departmentalization. At once it is the most radical idea of general education in contrast with the mental discipline aspect of the traditional, but paradoxically at the same time it encourages the *status quo* of a curriculum.

One thing this concept of general education does is to preclude the addition of new specific subject courses to teach specific ideas. For instance, it opposes the setting up of new courses, or even units, to teach citizenship, because all subjects if taught properly, it claims, contribute to good citizenship. Kandel in an editorial in *School and Society* questions "whether any single subject is more appropriate for the education of citizens than any other." He adds, "Liberal education, properly conceived, may have greater potentiality (to teach citizenship) than any special courses."¹⁸ Few teachers, however, ask what "properly conceived" means. Instead of refocusing their course they rely on the *a priori* logic of it automatically to foster good citizenship. The Educational Policies Commission in its *Moral and Spiritual Values in the Public Schools* holds the same view, that the best way to teach moral values is "to weave these concepts into the entire life of the school and to make them a vital part of all subjects. . . ."¹⁹ They beg the question by not asking what "vital" means in terms of teaching in such a particular way as to make every subject spiritual.

This idea of orienting each subject toward morality and good citizenship as a sort of general education all too often avoids the actual job of reintegrating subject matter. Some time ago when it became fashionable to emphasize critical thinking, in many high schools each subject department issued in turn a report to the faculty showing what it was actually contributing toward making students think, after which the faculty would subside into its self-same routines. We encounter it once more when faculties tell themselves periodically that each subject improves the pupils' reading skills. Likewise, today each subject is claiming to be a bearer of general values; still there is little or no general education throughout the average high school.

Most curriculum revision that would diffuse certain "spiritual" values

¹⁸ I. L. Kandel. An Editorial. *School and Society* 73: 282; May 5, 1951.

¹⁹ Educational Policies Commission. *Moral and Spiritual Values in the Public Schools*. National Education Association and American Association of School Administrators. Washington: the Association, 1951. p. 57-59.

throughout all subjects overlooks, as well, the profound cleavage running through all the social disciplines, much like a gigantic fault streaking through parts of the earth's crust—the judgment of fact (of what is), and the judgment of value (what ought to be). All the social sciences try to be scientifically based on research, and stay away from “right and wrong” in the ethical sense of these terms; yet general education must by its nature be morally oriented, using research of course to aid in decision making. But how are teachers going to handle values skillfully when they must borrow concepts from disciplines that ever strive to organize ideas “scientifically”—that is, to be devoid of values or be “beyond” values!

Another variation of this kind of general education, convincingly explained by Will French in Bulletin No. 208 of the National Association of Secondary-School Principals, is the purpose-centered school. Once the faculty declares its purposes—maybe the Cardinal Principles or those of their own making—instead of organizing itself for curriculum improvement by subject matter departments, it divides itself into committees composed of teachers of all subjects, each committee being charged with carrying out one of the purposes, say, worthy use of leisure time. In this way the subjects are supposed to come more directly under the influence of the purposes of the school.

When we speak of qualities of experience as general education, a serious dichotomy is revealed that scarcely comes to light in the other variations of general education. The overemphasis on the mental hygiene or guidance function within general education has tended to separate self-integration and self-development. There are many people who are well poised, have sound personal relations, are able to face trouble with courage and action, are secure, and have an optimistic view of life, and seldom if ever go to pieces. In short, they are well integrated. But they are not keenly sensitive to any type of poetic lines save moral jingles or to subtle differences of perception, between the moods of the impressionists and, for instance, the tactile values of a Cezanne; nor can they trace an intellectual current through several generations, nor would their consciousness be laden with the fruit of a thousand struggles and joys of other men and women; nor would they project themselves into the temper of another age; nor would they be able to analyze those abstract ideas like liberty or dialectical materialism, or imperialism, or liberalism, in the names of which men drop bombs on one another; nor can they pierce through to the propaganda behind a plausible appeal. In short, they are not well developed or “educated.” Cultivation of this sort is, of course,

no guarantee of inner peace and wholeness, as the lives of D. H. Lawrence, Melville, and Ruskin, to name a few, bear witness. But neither is the goal of wholeness a guarantee of self-enrichment.

Self-development as an aim is thus losing out in the American high school ironically because certain types of general education are relying almost entirely on the social studies. Its present strongholds—art, music and English—are slowly being eroded away by the social studies that treat social forces and trends as if they go on independently of self. Letting the pupil range far and wide through many subject matters or through all the areas of the Cardinal Principles is not the same thing as developing, or even reaching, the whole child. This type of general education might make a significant contribution if it could harmonize the goal of enriching the quality of the self with the goal of improving the pupil's interpersonal relations.

General Education as the Atmosphere or Tone of a School

When one looks at common outcomes as general education, one is struck by the emphasis on the tone or atmosphere of a school as an educative force in the creation of the general type to be desired—the British playing field with its honor, the church school with its prayers at meals, the military school with its minute inspections, the democratic school with its fearlessly free discussion. This has prompted a good number of educators to seek general education in the atmosphere of the school—the planned, democratically managed classrooms, the way faculty and administration work together, the responsibilities assumed by student participation in school government, the deliberately designed assembly programs with themes toward this end, the attention given to breaking down harmful cliques, class and ethnic lines, and rigid follower-leader relations. The school, in brief, throws its emphasis on human relations. This striving toward a democratic climate, it is presumed, becomes the kind of general education that would permit wide diversity of courses and subjects, and the retention as well, of most traditionally organized subjects.

Often the atmosphere of the school permits such wide diversity of experience inside the school that some activities may negate other desirable activities. Though the tone may be good there can be severe imbalance of the parts, just as in the old-tie British school the playing field was a world apart from the way Greek was learned. In some schools sports in the name of sportsmanship overshadow the rest of

the school, the band existing, for example, merely to lend color to the weekly game. In school after school the writer has visited, for example, the social problems classes went on with very little reference to the doings of the student council, whose quality of group process was distinctly different from, and generally better than that of the social studies classrooms. Dramatics may be content with "Aaron Slick from Pumpkin Crick" and yet engender remarkable cooperation. School spirit may be wonderfully high but few ask, "Spirit for what?" There may be much mixing and joining so subtly affected by socialization as to minimize intellectual matters. When performance in language skills is low, the teacher thus tends to say, "At any rate they're learning to get along. And that's the main thing—these days."

Relating her experience in teaching a unit called Philosophy of Life, a teacher at a conference pointed out with considerable glow how an "antisocial" pupil was turned into an "acceptable" person, as if this transformation justified the course. Since it was a unit on the meaning of life, one wonders why the teacher should not be elated as well over the pupils' understanding how the idea of "success" in life is related to publicity, how truly the movies depict American life, how sound the advertisements are that play upon our jealousy, pride, and herd instinct, and to what extent competition squares off with Christian values. These intellectual abstractions, over the interpretation of which minorities quarrel and marshal whatever political and economic power they can to their aid, often to the disruption of society, were obviously subordinated to getting along. This is not of course to belittle a school that aims at good human relations, but it does serve to point out that whatever tone it strives for, even pride in high academic achievement, can be debased by overemphasis. The tone of a school may be an ingredient of general education but it can hardly stand alone as general education while the curriculum itself remains relatively untouched.

General Education as the Improvement of the Present Living of Pupils

There is another type of general education that may be differentiated here, although it may fall equally as well within general education as self-integration or general education as qualities of experience, yet it has a way of looking at the pupil not quite definable in these two forms. Giving it a separate treatment here serves better to clarify what is going on in some of our high schools in the name

of general education. General, in this view, is thought of as the aid given to high school youth at a certain stage of their life process—their adolescence. This kind of general education would marshal all subject matter or experience to help youth with “imperative needs,” “personal-social goals,” “developmental tasks,” “persistent life situations.” Since youth, by virtue of being at their stage of life in our society, are of necessity working hard to meet the biological and social demands of this stage, general education, to be valid, it is said, should be that which is based on the common demands or circumstances of this stage of life. These demands become points of guidance in helping the teacher turn the logic of a subject into its functional aspects. Many units on “growing up,” “social living,” “occupations study,” “family living,” have emerged as a result of this concept of general education. Making a list of adolescent needs and building units around these needs and fitting them in almost anywhere despite the course label is being advised by those who have the power to control such matters. Probably the State of Illinois in conjunction with its university, has utilized the needs theory of general education more than any other state in the country.²⁰

But few such classifications of needs anywhere are held together by a search for the common elements of our larger moral community. Thus a unit on grammar, a unit on the history of Pennsylvania, one on boy-girl relations, and one on World Peace may stand side by side.

Although some educators go so far as to distinguish between the early and the late phases of adolescence for curriculum purposes, the weakness of this type of general education is that the stage is hard to define in terms of yearly gradings. And a newer conception of adolescence like that of Hollingshead's in *Elmtown's Youth*, which interprets adolescent behavior as a function of social class structure, complicates the former lists of physiological and psychological needs of adolescence.

Bode's definitive analysis in *Progressive Education at the Crossroads* of the inadequacy of the needs theory of adolescence on which to build a curriculum makes it unnecessary to evaluate the needs theory here. Furthermore, the human condition is such that one never fully gets rid of needs, never entirely abolishes conflict, never fully satisfies a need, never completely solves a conflict. As Schlesinger, Jr., writes, “Optimism gave the progressives a soft and shallow conception of

²⁰ Harold Hand. “Problems of High School Youth.” Illinois Secondary School Curriculum Program. Springfield, Illinois: Office of the State Superintendent of Public Instruction, 1949.

human nature. . . . The corruptions of power . . . had no place in the progressive calculations."²¹ Similarly, there are those educators who would but provide a "lush" environment, plenty of love, permissiveness and a manipulation of attitudes to make pupils good, as if removing the conflicts from life would thereby create a healthy mind. The first wound up in a naked power struggle. The second seems to be relieving youth of moral and legal responsibility for their actions, as if there were always some cause—biological or social—outside the self to account for every act. It is certainly difficult to teach responsible citizenship when youth are learning by indirection in special courses, units on human relations, and from counselors that their conflict with school regulations or municipal law is due to a bullying father or a neurotic mother or being born on the wrong side of the tracks. These arguments are often used to excuse youth on the wrong side of the tracks from coming to grips with intellectual matters within their range. It often discounts the existence of a margin of free will that deliberately does wrong knowing full well the baneful consequences of the act to the self and to others. Douglass M. Kelley, professor of criminology and a psychiatrist who served at the trials of the Nazi war criminals at Nuremberg rails against a determinism²² that apparently does not hold the child to reasonable standards of behavior. Most juvenile delinquency is not neurotic behavior.

In turn, to build a curriculum of general education on the findings of child psychology without looking at the social conditioning of these findings is often to float with the social tide, for as Dewey comments, frequently "what passed as psychology was a branch of political doctrine."²³ Further to warn us is the way the mental hygiene movement in its early days became hopelessly entangled with current ideas of success; and there is Martha Wolfenstein's satirical content analysis of pamphlets on changing child rearing practices as put out by the United States Department of Labor Children's Bureau.²⁴ From her analysis it can readily be deduced that a teacher's perception of a student's needs and the student's perception of his own needs would be determined largely by the prevailing idea of plea-

²¹ Arthur Schlesinger, Jr. *The Vital Center*. Boston: Houghton Mifflin Co., 1949, p. 40. Reprinted by permission of the publishers.

²² I. L. Kandel. (Editorial) "Child-Rearing and Child Behavior." *School and Society*. July 23, 1953, p. 28.

²³ John Dewey. *Freedom and Culture*. New York: G. P. Putnam's Sons, 1939, p. 29.

²⁴ Martha Wolfenstein. "The Emergence of Fun Morality." *The Journal of Social Issues*. 7:15-25; 1951. No. 4.

sure. Needs, interests and problems of adolescents, though good ways of letting youngsters initially dig into a subject, are next to impossible to put into a sequence for instruction.

Another noticeable lack in this type of general education is that it tends to skip lightly over the development of skills needed in the handling of abstractions in thinking. The developmental tasks idea seems to take for granted that concepts are made clearer and richer as the child himself develops. Thus, too often teachers who build units around these tasks avoid such matters, for instance, as the subtle difference between desegregation and integration, Jeffersonian democracy and the New Deal Democracy, or the difference between a luxury and a need, as if these will come of their own accord as pupils come to terms with their own bodies, their peers, their parents, and the opposite sex. The theorists holding this position cannot of course be held responsible for their more sanguine disciples' listing of forty or fifty needs of youth—with safety in driving, dating and spiritual values all on an equal footing.

Yet when done well, this kind of general education achieves a vitality that the subjects containing their own logic rarely attain even among the bright students, but what it gains in organic treatment and in interest it loses in universality of outlook, one of the main goals of general education. It has in many ways revived the traditional subjects from their somnambulance, but in itself, as a rule, it lacks intellectuality, historical perspective, and a study of what values hold our democracy together.

General Education as the Essential Heritage

In the debate between the essentialists and the pragmatists in the late 1920's, Bagley, the champion of the essentialist position, was arguing in effect for a kind of general education without explicitly defining it in its various possible curriculum forms. He assumed that there could be agreement as to a worthy common heritage to be transmitted to youth, and that this could be conveniently housed within the subjects already at hand. To him this heritage was the distillation of past experience, the wisdom of the ages, not a generalized content put up in functional form,²⁵ or each field reduced to its essential subject matter. The opposing pragmatists thought of education in terms of a general method, Dewey's complete act of thought, based on scientific method. The debate itself has become

²⁵ William C. Bagley. *Education, Crime, and Social Progress*. New York: The Macmillan Company, 1931. p. 8; 83-84.

irrelevant. The vast store of knowledge has snuffed out most attempts to delimit a heritage for all, and the repudiation by scientists of a general scientific method has put problem solving as the sole form of general education in a dubious position. In respect to arriving at an agreed-upon wisdom from the past, the best that can be done so far, we have seen in our second kind of general education, is to distill the essence of each of the disciplines and let each be the content of general education; but to select an essential heritage, as Bagley hoped, by which all youth would be disciplined, may be forever impossible.

Some who would reject an essential fund of knowledge as general education would make a list of crucial social issues or pressing problems and let them stand as general education. Under this plan each subject would be made up of discrete though essential problems to be investigated; here the essential tends to vary from classroom to classroom and from school to school. Frequently there is little to hold the problems together except the course label. Just as the logical organization of the heritage set out to be learned is not the only way or maybe the best way to humanize a pupil, so the study of essential problems is not the only way or maybe the best way to understand the social order. The essential as general, therefore, is full of pitfalls, either in the form of essential subject matter or as essential problems.

As another way of treating the essential, Conant, in the field of science, suggests that about the best we can do is to select a few representative discoveries or key ideas and trace their influence upon society and through society, to show, in the process, what science is and how it pervades a generation until it may change even the morals of the age.²⁶ As he suggests, we may be driven to treat the other vast fields in much the same way—the use of representative samples, or representative problems, or a work of art that represents an age or a human possibility.

This form of general education, then, may or may not seek to raise the number of required subjects. Neither does it necessarily define the place of each subject within a program of general education—that is, art in general education, history in general education, economics in general education, etc. The essential here, it is thought, is not the essence of a vast field, which is its contribution to general education, but rather it is a body of subject matter whose values still endure.

²⁶ James B. Conant. *On Understanding Science*. New Haven: Yale University Press, 1947.

These values reside mostly in works of art and in great documents.

This form of general education reflects the severe value conflict in our culture probably more than any of the others, for as soon as a subject matter department tries to determine the essence of the past as distinct from the essence of a discipline, it is confronted not only by a heritage that is chock-full of conflict but by an assortment of heritages. General education as essential heritage, however, goes to the very heart of what any form of general education must eventually bring itself to do.

General Education as the Common Experience of Participating in Schooling

The most inclusive idea of general education is the one that regards the mere act of going to high school—of mixing with all manner of youth, rich and poor, bright and dull, every race, ethnic group, and religion—as being in itself sufficient. To graduate is symbolic of one's having participated in what is every citizen's right. It is a four-year ceremonial, or democratic ritual, a rite of passage, a melting pot. Commager extols it when in *Life* he wrote "Our Schools Have Kept Us Free." Through the years after the Civil War the public school was the handy stabilizer, this view reminds us, during the greatest tide of immigration any country in the world has ever withstood without serious strife or threats to national unity. To some advocates the holding power of a school is thus its measure, irrespective of what goes on inside it to retain the pupil. The pupil's sense of being part of the "common" school justifies the school's existence, it is thought, in spite of defects like over-vocationalization, extreme fragmentizing of subjects, wholesale promotion, or watering down of content—all of which, it is optimistically assumed, will be properly remedied "in time." High school, even if one barely passes, it is thought, is for the most part a rich and happy experience. To have done nothing much more than to play baseball for four years builds up a genuine fund of reminiscence; one once played with men who are now important in public and corporate affairs; one is satisfied that one was once immersed in the most communal spirit of the town. In Europe this is not so; the people do not expect this creation of "community" from secular public education.

In America, too, the high school protects youth from the fluctuations of the economy in keeping them off the street, or from taking a job too early in life.

As one reviews the remarkable accomplishments of the high school in the past, this idea is valid; but it tends to sentimentalize the process and blinds us to the pioneering that remains to be done. It has tended sometimes to be a rationalization for discoverable defects in the system. No professional educators could countenance this view as the best we can do with general education.

Toward a Point of View in General Education

As we review these ten approaches, what generalizations may be drawn to help us design a curriculum for general education in the future? The following statements may be made.

These approaches to general education are not mutually exclusive categories.

These approaches are but a description of the ideas of general education the writer thinks he discerns as they are developing in American high schools. Few, if any, proceed from a systematic theory, and very few of these ideas of general education are antithetical or contradictory; faculties battle, rather, over their interpretations in curriculum terms. And so two schools that identify themselves with the same approach may be going about the change-over in altogether different ways and may be using completely different integrative threads for organizing ideas into subject matter. A school with a "unified" curriculum plan may adhere slavishly to textbooks. Another school basing its courses on adolescent needs may evaluate the learning by examinations that encourage rote memorization. A school whose subject matter as essential heritage is set up impressively beforehand, with hardly any concession to the maturity or ability of the pupils, may encourage a more fearless self-expression within this frame than some schools that lay claim to a kind of general education that has self-expression as one of its anticipated outcomes. The writer has come upon remarkable experience units in a school boasting of its "solid academic" tradition and within a curriculum periodically revised by merely altering a syllabus outline. One can find several of these approaches to general education going on in one high school conducted by as many teachers, whose innovations are quite unknown to one another, yet all may previously have been engaged "cooperatively" in writing the school's philosophy. To top off the confusion, some private church schools that write the Deity into their philosophy of general education permit an atmosphere that prevents their teaching "spiritual values" as effectively as some secular public schools.

This very condition bears witness to the confusion of our age. Other institutions can seldom do much better: theologians cannot work out a common creed, or politicians define a liberal, or economists agree on what capitalism is. These failures in other realms, of course, do not help a faculty uncover a logic that would create the "general" in general education.

All in all, the approach that seems to be enlisting the energies of most advocates of general education, although it may not reveal itself in obvious structural changes, is the one we call "Reducing a Subject Field to Manageable Size"—that is, maintaining the traditional subject matter fields but laying out more discernible boundaries for each subject from the vastness of each field. These boundaries are determined largely by asking this question of each subject, "What does it have within it that is appropriate for the vast number of pupils of widely differing capabilities and special interests who are soon to take part in a free society?"

These emphases in general education seem to be going on everywhere without much reference to a larger moral community.

All these approaches to general education are weak in that they proceed largely outside the ideal expectations of democracy, and in that they seldom represent values beyond the community and the present culture. Without this sanction the general ceases to have in it something of the universal and without the universal general education can hardly be liberal. Any quest for curriculum unity without this larger reference is dangerous. For the search for unity, too, has its pitfalls. It is prone to brush over the concrete—both the single pupil and the particular event—in its rush toward the large-scale abstraction. This is what happened to general education when it took the form of a survey. Once unity is thought to be had, thinking often becomes stultified. For this reason Dewey shifted, instead, to the unity of process. But without a quest for the source of our most precious values, general education loses its reason for being. It soon degenerates into human relations of the "how to be popular" sort, or into a weapon for manipulating people, or into conformity by oath, or into the totalitarian state, or into rank indoctrination.

To some educators, as T. R. McConnell reminds us, psychology says that "a common curriculum seems . . . to be inconsistent with what is known about individual variations in interests, motives, aptitudes,

abilities, and the processes of development and learning.”²⁷ Yet our technological society in creating myriad specialties, each requiring the full devotion of the individual, and therefore harboring many differing perceptions of a social event, demands that we create a common curriculum that harmonizes these individual variations and distorted perspectives. We may agree, too, with Corey that “in the last analysis it is the way the learner organizes his own experience that counts rather than the organization imposed by other people upon the subject matter the student learns.”²⁸ To be sure, each person must find a culture’s common values in his own inner fashion. But this is not inconsistent with the social aims of general education as summed up in this statement already quoted from Mannheim: “The fundamental dilemma of our age and the predicament of man should come within reach of all levels of education.” It is unlikely that the pupil can do it for himself unguided, even though he must do it for himself! In an age of value conflict like ours, such as Margaret Mead describes in *Coming of Age in Samoa*, not only is it difficult for a pupil to find the order by which to organize his ideas for living a life, but also in a free society there is the constant danger that he may arrive all too facily at a pseudo-unity—totalitarian, dogmatic, or comforting—to escape the burden of doing it for himself. This brings us to another generalization.

The nature of general education is such that subject matter must be extensively preplanned.

The main assumption, probably, behind the organization of ideas in general education is that because all pupils are replete with distorted, inert, isolated, confused and competing ideas, learning goes on better if these ideas, in conjunction with new ideas, are pulled together by larger conceptual threads. If the ideas come out of the learning process in an orderly way, and are perceived by the pupil to be orderly instead of being to him haphazard or fragmented, the pupil will thereby be better able to piece together the otherwise disconnected experiences that living itself presents, and thus be better able to make all these a part of himself. But this is no guarantee. Neither is a succession of interests of the student a necessary condition.

²⁷ T. R. McConnell. “General Education, An Analysis.” Fifty-First Yearbook of the National Society for the Study of Education. Part I. Chicago: University of Chicago Press, 1945. p. 9.

²⁸ Stephen M. Corey. “Psychological Foundations of General Education.” *General Education*. Fifty-First Yearbook of the National Society for the Study of Education. Part I. Chicago: University of Chicago Press, 1945. p. 61.

of unity. Of course, if his times be in discord, as they are at present, these ideas may be intellectually assimilated but the self may not necessarily be integrated by means of them—as happened to students and citizens in our own Civil War, or in our own conflict between science and religion in the 1890's when a good many college youth broke down under the strain of the controversy, or in our late depression, when there were ideological deflections from our democracy. In "times that try men's souls" youth should be aided to keep their balance even amid growing impersonality, uprootedness, and widespread loss of community in urban life. This is the aim of general education: it carefully seeks for self-integration in the pupil as it reveals to him the possible common bases underlying the conflicts in the democratic society being created in his generation. A school is a school because here experiences with ideas are ordered, and the pupil is educated not only because he perceives this order but because he can make it his own. The hitch is that this order may be qualitatively low. It can be raised only to the extent that the pupil's intelligence creates this order, and that he be permitted to experience all kinds of ways men have ordered ideas to live by.

Indeed, the need for understanding all kinds of organization of ideas springs, psychologically, from the fact, first, that every idea can be examined objectively by the mind as if it were a thing—that is, can be analyzed and used adaptively as a tool in control of nature or of one's talent; second, that every idea so regarded also creates mind, becomes self, deepens consciousness. For example, one can do research in the concept of love but never learn to love, and one can love and never analyze it at all; one can discover truth yet not be able to act upon it. General education is thus necessary because the self is larger than the mind that organizes ideas—larger than one's job, larger than one's integration at any moment of existence. Because the mind cannot be taught all kinds of organizations of ideas at once with awareness, even though they may be "by nature" organic, each type of organization must at some time be taught and analyzed *singly* by the pupil before all can be understood later on as one. General education is an attempt to show the necessary relations among all types of organizations of ideas even while the students are in the midst of living them organically yet perhaps unconsciously.

Liberal education, by ignoring the present condition of the pupil and the reforming of the social order, had failed to do this very thing; general education thus makes liberal education possible. General education adds a new dimension to liberal education by attempting

to see to it that the very process of education itself does not impair the self: to see to it that in liberating youth from provincialism we do not uproot youth from a sense of community; that in releasing them from superstitions and pointing out the false assumptions built into them over the years, we do not leave youth with nothing to believe; that in having youth understand the separate parts of an object, a movement, a culture, a body of knowledge, we do not rob them of the fuller meaning of it.

Today, this task requires group planning in the large-scale organization of ideas on the part of a faculty whatever be the kind of general education it hopes to bring about, from the most rationalistic to the most "emergent."

No comprehensive unity may be hoped for.

Although general education is an avowed search to realize a larger democratic community that will deliberately cultivate many original exceptions to the commonality, and although it entails a large-scale planning of ideas, it cannot achieve as yet even a tentative worldview, or a curriculum to house it. The best that can be done is to draw upon all available sources of knowledge. In this respect it should take its cue from physics, where two theories, the wave and the quantum, are both used to explain the same phenomenon; where, according to Oppenheimer, "state and orbit, like position and impulse, are complementary notions; where one applies, the other cannot be defined, and for a full description we must be able to use now one, now the other, depending on the observation and the questions that we put."²⁹ By analogy, general education should draw on all the main streams of education for its processes, and let them operate side by side within the larger aspiration of democracy, so that pupils may track down the common in all the ways it can best be experienced.

General education must draw from all the main streams of education.

As we examine the ten approaches to general education, it is clear that not one proceeds from a single, consistent theory of education, or even a single theory of learning, not even from a systematic social philosophy within democracy. We can, however, identify four main streams of thought that have been at work to justify the processes going on in the name of general education in the classrooms of

²⁹ J. Robert Oppenheimer. *Science and the Common Understanding*. New York: Simon and Schuster, 1953. p. 62-63.

American high schools. All are influential despite acrimonious controversy as to their relative importance. If any one of these becomes the sole theory to justify general education, the meaning of general is violated.

1. By the eighteenth century, rationalism arose to enough power to defeat the claims of tradition and authority; reason was sovereign, it was proclaimed, and had its own laws of logic, and these could be learned. This led to the idea of mental discipline through the use of the logical organization of ideas. This appeal to reason brought our Republic into being, in the name of inalienable rights. The logic of reasoning is all we have where science does not, need not, or cannot penetrate; and training in deductive logical reasoning, therefore, has a legitimate place in the high school.

2. Another stream, humanism, born of the Renaissance, in its quest for the universal man came to resist conformity and provincialism, and in its later phases became an antidote to the "coldness" of reason. Its aim has been self-cultivation. The high school cannot forsake this aim and still be a secondary school. If language study, once the principal means to self-cultivation, in that it opened up the great classics of the western world, has been divorced from this ancient goal, then this aim must be reached in other ways. English, when at its best, has kept this ideal alive.

3. Pragmatism, a newcomer, came in to put mind into nature so that thinking might literally give direction to society instead of riding with society. It gave realism in education a process. It helped usher in the whole of what in the curriculum we now call the social studies and the problem method.

4. The latest stream to flow into education which has already modified our ideas of method and appropriate content is one that generally goes by the name of mental hygiene. It recognizes more emphatically what the other three streams have seldom taken into account—the nonrational in man. The stratagems that the self employs to keep its overwhelming and disagreeable tasks from the bar of reason cannot be put into a problem to be solved, a lesson to be learned, but are more amenable to therapy or a special way of treating the person. The classroom atmosphere is thus seen to be educative; it becomes more than a classroom of fairness and impartiality but one fostering self-esteem and a respect for the life-space of each pupil however meagre or perverted. It seeks, too, to cope with a neuroticism that is marked by a pseudo-consistency of ideas quite reasonable to the holder.

Though each of these streams has lost the galvanizing influence it

once had at a unique moment in history, all four of them have actually strengthened themselves, because each has worked with its eye on the others, until each possesses an emphasis growing out of a weakness that the others have; each would correct the focus of the others. Rationalism has been tempered since Descartes, especially by studies in the sociology of knowledge, which have demonstrated that a whole people may employ reason to enhance an irrational national myth. Neo-humanism, also, as the "neo" implies, is repentant of its past idolatrous worship of literary forms to the point of being precious, and more aware, too, since the advent of psychoanalysis, that it takes more than a discussion of values in a masterpiece to make a rigid character-structure liberal. Pragmatism in its short existence has already been modified, by science itself, which denies that there is one scientific method. And it is disquieted, too, because its cultural relativity has little to bring to an internationalism that hopes to frame a declaration of human rights for all peoples. The mental hygienist has stopped looking at social protest, radicalism, and individualism as signs of maladjustment.

Yet each has something positive in its own right that goes dimly perceived by the others because each is distorted by its own system-making. Each cautions the other somewhat as Herbart warned psychology in his day, that its "truth . . . should not be mistaken for a complex knowledge of human nature . . . that in this mistaking of isolated phenomena for the fullness of psychic life—it does not distort the facts themselves."

Rationalism has continually insisted on the worth of rules of logic in the thinking through of an idea. Despite its limitations, logic of this kind has a definite place: in the presentation of research findings for communication, for instance, which requires the old-time unity and coherence of rhetoric. To write a paragraph that has consistency requires infinite practice over a period of years despite the illuminating personal experiences that pragmatism would bring to the youthful writer to motivate him. Then, too, as Northrup³⁰ brings to our attention, Dewey's idea of the scientific method underestimates the long assiduous deductive phase after the hypothesis to be tested is formulated. Thus, in the problem method as used in the average classroom, the necessary deductive phase of the total inquiry that calls for close reasoning—that is, drawing correct inferences and subordinating minor thought to larger concepts—is often being neglected. Thus,

³⁰ F. S. C. Northrup. *The Logic of the Sciences and the Humanities*. New York: The Macmillan Company, 1947. Chaps. I, II.

many of our high schools have been glossing over the hard work involved in writing a logically clear sentence and in a well-ordered elaboration of a statement—as if interest, which is certainly needed for sincerity, and as if a wealth of subject matter from various concrete sources, which is essential, to be sure, will of themselves take care of the matter of clarity, proper organization, and the semantics of high-level abstractions. Greater interest in school work has often been gained through the experience way of teaching and with it has come greater effort, but the effort, the rationalists reiterate, has been very often directed away from the cognitive; getting things done becomes more important than improving one's reading or one's writing. On the other hand, experimentalism boasts that it has rescued the pupil from organizing ideas for their own sake, by rooting the thinking process in the biological nature of the human being.

In contrast to these, the humanists contend that the mind can have a life of its own—can have one without being withdrawn from reality—and furthermore can help create a reality far more human than many forms of activity can ever hope to do. Pragmatism, however, grew out of an impatience with a type of literary experience that did often lead to neuroticism because the study only of literature made one too inept before power, and it rightly railed against teaching character solely through such symbols as Sir Galahad, Sir Launfal and King Arthur, and teaching it in the same way to poverty-stricken youth as to the sons of the overprivileged: instrumentalists much prefer having youth of all classes work together, for example, to delve into such concrete problems as slums and unemployment. In reply, humanism criticizes the problem method because when a social problem is solved in the classroom, the pupil need hold only an opinion, not a conviction, in regard to its consequences, because the basic normative beliefs of the youths involved in solving the problem, coming out of different perspectives, are not resolved in the solution of the problem. Values, in other words, do not become a part of the problem, or of the discussion of the problem, yet are there subtly at work. Humanism has not let us forget that there are both immediate and ultimate values, especially that the social sciences, in imitating the physical sciences, have ever been embarrassed by the value judgment. Because of its awareness of history, humanism has scored the contemporaneousness of the mental hygienists, who often do not know the origin of their own cultural bias when they define mental "health."

Humanism also claims that it can bring to the classroom what neither rationalism nor pragmatism can—intensity. Art vivifies and

exults and makes us live twice, so to speak, once to perceive for the sake of adjustment and then to relish it. Humanism takes the sensory moment, which to the pragmatist is but data for the testing of what in a situation can be predicted, and puts it into such a form that it may be relived again in consciousness. Humanism helps the pupil project himself into the hearts of others, to see them from the inside, these inner lives that we can only infer are there from our daily contacts. Humanism helps us to see "as if we were God's spies." Humanism points to wonder, awe, mystery and tragedy as an antidote to an age in which sociology, that by nature abstracts man from society, is called upon, even under the banner of general education, to halt the impersonality of the age! Yet, where humanism declares some values eternal, there stands pragmatism ready to challenge the claim, revealing how the experience of bringing eternal values to bear upon a contemporary situation is tantamount to a novel one, and is not the application of a ready-made value as one would see a yardstick; it is not just the recurrence of another "abiding" human problem. Pragmatism thus grants humanism its intensity but shows that humanism gains it at the cost of a frame of reference—that is, it does not know how to organize or group its classics for the purposes of instruction.

And the mental hygienists call the humanist's attention to the fact that a young reader, though genuinely moved by a passage from a masterpiece, may suppress it in order to prevent himself from tracing the consequences of his stirred-up consciousness. This means, say the hygienists, that getting the meaning of a classic and even stating one's reaction to it are not enough, that there must be in addition an analysis of why one's response to a work of art is what it is. Freedom is a discipline that must be worked at hard, and entails restraint, the humanists have said for generations; but freedom must have some meaningful task to work on, replied the pragmatists; yet freedom, add the mental hygienists, cannot be earned by one who has a false picture of himself.

For a long, long time, there will probably be no common denominator concepts cutting across these four emphases in education: the adaptation process of pragmatism, the value search of the humanities, the classificatory type of thinking of rationalism, the analysis of the subconscious of the mental hygienists. Yet each can coexist inside general education. No one group or point of view should hope to capture the general education program for itself. For some pragmatists to create a general education strictly on social problems alone,

for some progressives to abstract units only from adolescent needs, for some humanists continually to turn subject matter away from community life in favor of tradition in the name of the eternal, for mental hygienists to suppress individualism as incipient maladjustment, for some rationalists to keep youth glued to parsing sentences—all of these are but to truncate general education. Yet all these activities are needed in some degree.

This is not an appeal to make general education eclectic; neither does it mean that general education must wait until these four main streams of education reach common theoretical agreement; nor does it imply an easy-going tolerance of allowing each to compete with the other from school to school, from class to class. These four emphases may exist side by side within the same process: exactness in comprehension and respect for consistency in framing one's thoughts, which are the staples of rationalism; the heightening of consciousness, the development of empathy, the analysis of which values are to be preferred above others—these the age-old aims of humanism; making ideals the instrument of human betterment, the ability to seize a situation with detachment, wariness of one's own logic and ideals, the enlisting of the whole being in the educative act—the concerns of pragmatism; striving not to set up neurotic blocks to the use of reason, the goal of mental hygiene. Since curriculum improvement must proceed—given the value conflict in the culture, the vast accumulation of knowledge, the lack of a common theory of knowledge, and the great demands upon schooling that our idea of democracy has wrought—we cannot wait, but must rely on a philosophy of pluralism until a larger degree of unity comes about.

Instead of wasting their energy in controversy all four streams could unite against their common enemy—downright poor teaching. When confronted with the horrendous assign-study-recite rigmarole, no one would then blame it on "those reactionary rationalists" because no rationalist really endorses it. When we come upon the game of playing with literary characters, whether Olivia is nobler than Ophelia, or give four characters from *The Return of the Native* and write a sentence about each, or find ten similes in "The Ancient Mariner," we will not curse sterile humanism because no humanist likes this sort of thing either. When a unit culminates in many *papier maché* projects, models, and slides of field trips, but little evidence of solid thinking, there is to be no thrusting at the soft creed of "learning to do by doing," because no pragmatist really believes this either, being careful to say, "by doing and undergoing." And when a teacher through

group work turns his class into docile conformists, there is to be no satire over "groupy" mental hygienists, because they do not actually believe in reducing tension, anxiety, and conflict to amiability and "peace of mind."

Curriculum Revision and General Education

From all this, it should be clear that general education is not fully served by a faculty's working at only one of its forms—by installing, for instance, a core program. A core program is only a beginning, even if it is a most "advanced" core; for other things must be done outside the core, along with it, to make even the core itself "work." A faculty must do more than keep a sympathetic eye on the core; it should be developing other aspects of the general.

First, a faculty should be studying the atmosphere of the school as a bearer of general education, especially the source of the cleavages in the school's unity—the feeling between rural and urban pupils, the smoldering friction between academic and vocational groups, the interference of the extracurriculum with the curriculum, the leader-follower patterns, the latent hostilities growing out of homogeneous grouping, the guidance-classroom split, the imbalances and over-emphases that violate the meaning of general education.

At the same time, the faculty should be studying each subject outside the core, determining the general phases of the vast reaches of which it is a part, to see what it has to offer the growing adolescent besides its own specialist function. What in the whole field of music, for example, and what in the almost limitless social studies, is essential to the high school student, and of this content which is authoritatively sound?

While this is in progress, if a faculty wants to bring vitality and freshness to instruction, it must consider how to incorporate the needs, interests and persistent concerns of youth into the purposes of each area of study, particularly those concerns arising from the peculiar nature of the community. In its zeal to knit up the dangling threads of the curriculum a faculty must not overlook the existential aspect of experience, the unique agony and joy in each learner, the fresh impact of old ideas.

In addition, the problem and the unit methods, since by nature they are no respecter of subjects as such, might be more theoretically analyzed in respect to general education. If a faculty did so, it would soon perceive the confusion as to the meaning of these terms. It would see that a unit on grammar is an anomaly, a chapter in a text not

a unit. It would see that studying an issue is not necessarily a problem, that neither is a topic a problem. It would see that a problem is a process of thinking, a mode of intelligent investigation. A faculty would have to look, also, at other "general" processes in a school—the quality of its small group thinking and acting in respect to value conflicts, in club, in class, in committee, in council, among pupils, among teachers, and among teachers and pupils. Then, too, the process of organizing ideas clearly for communication, which all students must learn, would need to be examined as quite different from five steps of problem solving.

Furthermore, a faculty must ask itself whether there are some records or accounts of aspirations, tragedies, heroisms, triumphs, defeats, friendships, betrayals, bliss, and idealism that all pupils should come upon at their level of reading and of maturity. Is there some vicarious experience that all pupils must have in some way or another, without which they have not at least met that which is distinctively human? A faculty must decide this question or risk never coming to grips with the challenge of general education.

Lastly, the search for general education would not let a faculty rest if it did not evaluate its work more by looking at the behavior of its product than at the immediate results of a unit, a chapter, a test, a problem. Is there visible evidence that our pupils are more affected by beauty? Do they show better taste, a keener sensitivity toward truthful statement, a delight in man's past? But above all, where in the school are situations and experiences being set up that aim for such qualities in *all* students, not just among the "academics"?

In short, the general must come to carry a connotation of richness and spirituality more than the academic now does. Time was when common learnings were designed for a privileged elite; it is now high time that a curriculum of general education be created for *all* youth in a democratic society. The general—whether it be a course to take, an atmosphere to be striven for, a heritage to be glimpsed, an outcome to be achieved, a need to be fulfilled, a problem to be solved, a vision to be shared, a heart to be stirred—must be so conceived by a faculty that all pupils have a chance to participate in it. No other meaning of general education is sufficient for the task facing the American high school. Putting English and social studies together is but a thin make-shift. Too long have administrators and teachers been complaisant about the curriculum chaos. Too long have they used lay criticism of innovations to rationalize their own inertia and their lack of responsibility toward the best thinking within the profession.

The progress of general education depends largely on how well research and scholarship can integrate knowledge.

It is unfortunate that the surveys of general education in the high school have been put up almost entirely in such classifications as administrative arrangements, forms of correlation of subject matter, or degree of advance planning by teachers. Even the listing of the varieties of scope and sequence of the units in social living courses in general education has not been as fruitful as expected, for what goes on inside the stated problem or unit label is what counts—this really becomes the general in the process. As urgent as it is to do these descriptive surveys of the forms of general education programs so that all of us may observe the trends, this kind of research is secondary to the need for digging out the various types of qualitative synthesis now going on at the level of scholarship, and then translating these into curriculum forms for the purposes of the high school.

Fortunately, there are such integrative threads being worked out, some crossing various disciplines, others uniting at certain points the various fields of organized ideas, and still others bringing together under larger concepts certain levels of knowledge. Unfortunately there has been little or no cataloging of these fruitful integrations for teaching the general education courses.

For some time it has been known that the new theories of child growth and development, the teaching of thinking by means of the problem method, and recent research into the process of conceptualization in growing children, all with disparate origins, needed to be synthesized. This lack is a block to those who seek to use these elements in general education. Hilda Taba's classroom experiment as described in *With Focus on Human Relations*³¹ seems to be working toward bringing these elements within a common method. For instance, the teaching process thus takes these steps: (a) activities to discover needs; (b) selecting objectives from these; (c) planning problem areas to obtain these objectives; (d) development of content; (e) organizing learning activities to provide opportunities for analysis and inquiry, contrast and comparison, generalization and application, evaluation.

Nathaniel Cantor, too, has been trying to bridge a severe fissure within the method of teaching: what does a teacher do when one kind of psychology that insists that education involves the whole child

³¹ Hilda Taba and Deborah Elkins. *With Focus On Human Relations*. Intergroup Education in Cooperating Schools. Washington, D. C.: American Council on Education, 1950.

in the total environment confronts another that reveals that learning takes place best "within a specific situation characterized by limits and focus"?³² Teachers embarking on general education in particular are swallowed up in this predicament, with feelings of insecurity and guilt, especially when their own unconscious needs interfere with the needs of the children.

Our democracy has in the main accepted the belief that if the market of ideas can be kept "free," eventually the best ideas win. This optimism has overlooked the role of power when ideas clash or how personality change is altered when conflicting ideas are to be resolved. Here more than a union of action and ideas is involved, as in the project method; a change in the deep-seated normative beliefs of the contenders is required. This attempt at the synthesis of normative belief, character structure and power as undertaken by Raup's *The Discipline of Practical Judgment*,³³ makes it easier to come nearer the unity of self which is one justification for the existence of general education.

Such realignments of subject matter as are done by the Committee on Human Development at Chicago and the Institute of Human Relations at Yale, breaking down as they do the sovereignty of each of the social sciences, help integrate knowledge at its source, thereby permitting better organization of courses in general education in high school. More works like Lauterbach's *Man, Motives and Money*,³⁴ which attempts to synthesize psychology, sociology, economics, and anthropology, are needed if better threads for holding together social living courses in high school are to be readily accessible to teachers of general education.

These few attempts pointed to above are the kinds of integrations needed if general education is to do what we call upon it to do. Few teachers can do this sort of thing *in the midst of teaching*; indeed, a high school teacher can hardly do this sort of thing at all; this depends on years of scholarship and numerous research studies and deliberately sought after experience. However, if teachers must make such integrations at present, general education can seldom be more than an improvisation with ideas in general—which was what it was, in the main, in the broad field units of early pioneering in general educa-

³² Nathaniel Cantor. *The Teaching—Learning Process*. New York: The Dryden Press, 1953.

³³ Bruce Raup, Kenneth Benne, George Axtelle, and B. Othanel Smith. *The Improvement of Practical Intelligence*. New York: Harper and Brothers, 1950.

³⁴ Albert Lauterbach. *Man, Motives, and Money*. Ithaca, New York: Cornell University Press, 1954.

tion, such as at the Horace Mann School, as much as we are indebted to its experiments. Teachers at the time were trying what scholars feared to do!

These few illustrations of what may be called qualitative integration try to put ideas together in a way which will keep organic what is organic anyway rather than permitting such to be wrenched apart by haphazard experience, by the deepening trenches of routine, by forces unknown to us but working in us, and by the impossibility of perceiving an experience from all perspectives at once. It is because of these matters that formal education exists at all, and the general phase of this kind of education is to keep the self whole and stable while the changes in the self that education makes proceed; it is an effort to make sure that school education itself does not thwart the pupil's own potentialities.

In sum, the quest called general education is one of how best to integrate ideas and experiences in order to help create a self stable and secure, yet at the same time rich and free, within an ever-expanding body of knowledge and in an increasingly interrelated yet conflicting society.

General, Special and Vocational Education: An Exploration of Distinctive Differences

James E. Spitznas

General and Special Phases of High School Programs

ANY DISCRIMINATING grasp of the significance of the terms general and special as applied to educational programs requires, first of all, some understanding of the forces that are shaping the public schools of the United States. One must view these schools genetically and historically and comprehend the changing necessities of American life to which they seek to adapt themselves.

Early Secondary Schools Did Not Distinguish General and Special Education

It is a commonplace that the colleges determined the purposes and programs of the early high schools. The Committee of Ten, which made its report in 1893, stated that "every subject which is taught in a secondary school shall be taught in the same way and to the same extent to every pupil so long as he pursues it, no matter what the possible destination of the pupil may be, or at what point his education is to cease." Evidently, the Committee believed firmly that the single curriculum which it advocated served the purposes of both special and general education. Hence its expression of unquestioned

belief in the equal efficacy of the subject fields in developing and sharpening intellectual skills. It was a statement also of implicit faith in the doctrine of the transfer of training. The development of intellectual skills, it attested, was the best preparation for college or for life.

Just prior to the issuance of the Report of the Committee of Ten, Superintendent Austin of Lincoln, Nebraska, in 1891 on the basis of data gathered from one hundred cities, was convinced that "not more than 10 percent of the high school enrollment and not more than 25 percent of the graduates were going to college." The members of the Committee of Ten, all of whom, except the United States Commissioner of Education, were connected with colleges or college preparatory institutions, were presumably aware of these facts. This knowledge did not deter them from accepting the belief that there was but one royal road to learning and that all who persisted in school should travel that road. Parallel purposes and programs were recognized as important from time to time particularly by school administrators and teachers who were close to realities in the changing high school, but for many decades this recognition had little effect upon actual practice. The colleges continued to dominate the high school.

That the single curriculum was intended to serve both general and special needs may be illustrated by reference to the curriculum in effect in a typical small high school in a town of 6000 people in the years 1907 to 1911. This school program reflects the influence of the college and reveals also the concessions made to more practical needs at that time. Sixty-three pupils constituted the freshman class in 1907. Fifteen remained to constitute the senior class in 1911. Of these, thirteen graduated and one went to college. All pupils took all subjects offered in any one year.

<i>Subjects</i>	1907-08			1908-09			1909-10			1910-11		
	F	W	S*	F	W	S	F	W	S	F	W	S
Reading.....										x	x	
Spelling.....	x	x	x	x	x	x	x	x	x	x	x	x
Writing.....				x	x	x	x	x			x	x
Grammar.....	x	x	x	x								
Arithmetic.....	x	x	x		x		x					
History.....	x	x	x	x	x	x	x	x	x	x	x	x
Algebra.....	x	x	x	x	x		x	x	x			
Rhetoric.....	x	x	x		x		x	x				
Latin.....	x	x	x	x	x	x	x	x	x	x	x	x
Geometry.....				x	x					x	x	x

* F—Fall; W—Winter; S—Spring

<i>(Continued)</i> Subjects	1907-08			1908-09			1909-10			1910-11		
	F	W	S*	F	W	S	F	W	S	F	W	S
Physics							x	x	x			
Chemistry										x	x	x
Physical Geography				x	x	x						
Bookkeeping						x		x	x			
Literature						x	x	x	x			
Composition											x	x
Language				x	x	x				x	x	x
Drawing		x	x		x	x						
German							x	x	x	x	x	x
Manual Training											x	x

If this school had been a little larger, undoubtedly Greek for all would have been included in the curriculum. If it had been still larger, botany, zoology, or geology might have been included.

In the larger urban schools, at least the rudiments of parallel curricula were developing. Even at the time the members of the Committee of Ten were expressing, with greatest authority and with wide acceptance, their view that the particular curriculum which they advocated was general in the sense that it was good for all who pursued it, this same view was being repudiated in practice. The rise of alternate courses for those with different capacities and goals other than college was evidence that the curriculum which the Committee of Ten recommended was essentially a special curriculum. So, indeed, were the curricula which were developed as alternate possibilities.

Thus began the fragmentation and specialization of the program of the secondary school. It seems that at this time there was little, if any, thought given to the possibility and the necessity of adapting the school program to individual differences. Each subject, rather, connoted its own inflexible set of intellectual hurdles which all pupils must take in common. Each was a special offering. Each was a screening device in a selective process which operated in the program of the school described above to determine that thirteen of sixty-three were worthy of the high school diploma.

Even the junior high school, which as an organizational form developed so rapidly in the 1920's, evidenced the continued domination of secondary schools by colleges. The secondary school's appropriation from the elementary schools of grades seven and eight was obviously an outgrowth of the college's insistence on better trained entrants. As a matter of record, this influence extended down into the elementary school and was largely responsible for the development in

the first six grades of well-organized, conventional courses in science and history.

The Common School Counters Imposed Specialization

This movement in curriculum development operating from above downwards was bound sooner or later to come into contact and, to some degree, into conflict with a counter movement operating from the cultural roots of America upwards through the schools of its own creation. Indigenous culture could not, of course, become effective in the schools until it could show its many facets and its many images through the children whose growth it was moulding and shaping. Through the 1870's and the 1880's and the 1890's, the age of employability in many classes in our society was 10 years. It was to be expected that in those decades the primary school would constitute the common school of America. As the age of employability was advanced to 12, to 14, to 16 and now, in some areas, to 18 years, first the intermediate and then the junior high school grades became part of the common school and yielded—not yet wholly, it is true—to the counter curriculum movement which is creating a distinctive, indigenous *Volksschule* in this society. These native cultural forces are now—along with the children of all the people—moving into the senior high school and demanding that this school reorganize and redirect itself accordingly. This suggests that the senior high school in seeking the kinds of adaptations it should make in its program should look not only to the educational levels above, but also to the elementary school which has had longest experience in devising forms and processes congenial to our many-sided cultural complex.

There is no intent here to assert that the college, and most particularly the university, does not have a responsibility and a distinctive service in helping to shape the common school of America. Already, through basic research in the natural sciences, the college has mothered our advancing technology which, in turn, has determined in part the content of the curriculum and, to some extent, those who shall stay in school and the length of their stay. Through basic research in the behavioral sciences, the college is giving insights into the nature of human growth and development, clarifying the character of individual differences and of interpersonal and intergroup relationships, and broadening that community of interests which demands revision and greater precision of thought in respect to what is general and

what is special education. Above all, the college and the university must continue to be to all levels of the program the symbol and the servant of those intellectual values which the common school is learning to conserve and advance through the extended education of all children.

As there is no intent here to exclude the college and the university from the task of helping to shape the common school, so there is no intent to claim that the elementary school has succeeded in adapting itself perfectly to the requirements of our culture for perpetuation and improvement through education. The only intent is to assert that those grades which have for the longest period encompassed all the children have the keenest awareness of the realities of the situation and that from their experience they have evolved certain educational forms and processes with continuing significance to the twelve-grade common school now being developed. Many elementary schools have, for instance, a very live awareness of the great differences in rate and extent of maturation—mental, physical, emotional and social—among children of the same age. They are beginning to understand that this is a cultural as well as a biological matter. They have learned something of how to practice in accordance with the truth that girls, on the average, are two years more mature than boys of the same age. They are learning something of the power of the culture itself to transmit ways of thinking and behaving and how this power fails with those who learn deviate ways. The point is that these elementary schools have some consciousness of the qualitative and quantitative nature of individual differences and have attempted to develop organizational forms within the class and variations in content and procedure in keeping with these differences.

New Conceptions of Specialization Develop

The significance of all this for the secondary school lies largely in the fact that individualization is the nucleus of specialization. Both of these processes have their genesis in whatever truth is found in the claim made by the disciples of child study that "children hear teaching in terms of their needs and structure it according to their experience." Individualization and socialization, the special and the general in a democratic society, are obverse and reverse of the same coin. One's individuality is fully realized in association, not in isolation. Along with the specific act one learns what he may do and what he may not do in this society, how far he may indulge his predilections and his biases. He learns also the social effect and the social value of his

novel ways of doing things and of his ways of doing novel things. Symptoms of individuality should be looked for and exploited as the best guarantors of the group's health and as the most reliable safeguards against monotony and monopoly and uniformity which, perhaps, is another name for tyranny. The school should provide a climate congenial to developing individuals with special competencies, should work with patience until such persons have appeared and have exercised themselves in representative groups where their social worth is demonstrable, and should nourish them to maturity in these groups where there is minimum danger of distortion or perversion.

Sometimes the segregation of students as groups or individuals for instruction or treatment is identified with specialization of programs. Segregation may be used to facilitate specialization, that is, individualization, but it is not necessary to the process. One fifth grade boy talked his whole family to sleep one night. He discoursed for hours on the subject of the Leni-Lenape Indians, their origins, their language, folkways and customs, because this topic had fired his imagination and his enthusiasm. This boy does not differ in kind from the ninth grade youngster in a general mathematics class who independently but with periodic supervision from his teacher went on to master the elements of first-year algebra. In like vein, we may say that the third grade girl who has not progressed beyond the primer may five or six years later be in a class of ten for special reading instruction in the junior high school. At both periods in her school career she may be said to be following a special program. Similarly the pupil who throughout his elementary school days volunteered always to be among those who interviewed the prominent citizen may later on in high school be discovered in the class in journalism. His special interest and activity did not suddenly appear in the senior high school nor is it likely that it is his only talent. It is probably one of a number of interrelated possibilities and, even after one of these has become the basis of his vocational choice, the others may long remain to plague him with the thought that he might have taken another course and that "that could have made all the difference."

The operation of general and special education concurrently at all grade levels may be illustrated by another set of referents. Junior high school students may be reading in science texts or supplementary science materials how plants and animals adapt for seasonal change. The level of reading difficulty is geared to the reading abilities of the pupils, but the concepts are common, even though to the individuals they convey varying degrees of meaningfulness. It is a general educa-

tion program. In this class, however, there are two pupils who are, intellectually, very mature for their age. They may decide to study plants and animals at firsthand in their own environments, to observe critically and record factually over a considerable period of time, and to draw conclusions which they will continue to check and apply. They may do essentially what an ecologist does. Theirs will be, in part, a special program. So from the early grades some students may do essentially what the physicist, the chemist, the geologist, the sociologist or the technician does. Surely such a conception is supported by what is known about differences among students of the same age group. To draw from it optimum educational values for our society, it is only necessary to remove the barriers set by allotting special functions to each of the several grade levels, the minimum intellectual equipment essential to social solidarity to the elementary grades, exploration to the junior high school grades, and specialization to the senior high school grades. To encourage and stimulate students to explore and learn in accordance with their individual abilities and interests would work an educational revolution and set a considerably different task for the secondary schools.

These references may do to illustrate the fact that programs of general and special education operate concurrently at all grade levels in the common school. At all grade levels pupils should be generalizing, exploring, trying out and specializing in accordance with their ability and level of maturation. Their educational experiences should be qualifying them better for work, for civic participation and for self-realization. That pupils relate their own peculiarly individual experiences to the common purpose is the essence of general education. That they relate these experiences to their own purposes is the essence of special education. To relate them to the common goals is a challenging and perplexing task for it entails for each individual—both pupils and teachers—the broadest comprehension possible of the nature of the world in which we live and the significance of one's role in this world.

All of this touches crucially upon a problem that must be central in the thought of all educators today, that is, the problem of individual differences. The history of the school to date as it relates to this problem may be summarized briefly as follows: (a) Changes in our culture and our economy have brought all children into the elementary schools. (b) The presence of all the children has compelled an awareness of wide ranges in maturation and ability among those in the same age group. (c) This growing awareness has made it clear that

while the class as a group is studying the general aspects of a problem, topic or subject, others may be studying in addition the related specialized aspects of it. (d) The organization of a single class group for the study, concurrently and coordinately, of the general and special aspects of a problem or a subject leads to the weakening and, to some extent, to the breakdown of subject compartmentalization.

The forces that stem from our cultural roots and from our dynamic economy have now extended themselves to the secondary level and are compelling corresponding adaptations in high school programs. The secondary school is rapidly being incorporated into the common school. In 1950 about 75 percent of the age group 14 to 17 years was in high school. It is predicted that by 1970 this percent will have reached 90. The junior and senior high schools are fast becoming a part of the system of common education and are of necessity responding to the same pressures as did the elementary schools. The evidences that they are so responding may be found (a) in the shifts and changing emphases in the content of the subject fields; (b) in the grouping of subjects around broad fields in place of isolated courses; and (c) in the selection of content on the basis of the contribution it makes to understanding and participating in the common life.

Language Arts

If we look closely at the changes which have been imposed upon the high schools by the influx of ever more heterogeneous groups of pupils, we are able to discern these evidences. Since almost all pupils who complete the secondary school program will have taken three or four years of what is euphemistically called English, it may be illuminating to begin by examining some of the changes which have taken place in the content covered by that label. If we refer to the list of subjects which constituted the curriculum in the small high school previously discussed we find eight subjects which in the present high school are comprehended in the one term, English. These eight subjects, now brought together in juxtaposition and interrelated operationally in a program of some degree of integration, are reading, spelling, writing, grammar, rhetoric, literature, composition and language. Today, all of these elements are included in one program usually labeled language arts, or oral and written composition and literature. The course presumes that the need for expression is constantly present in the work of the pupils in the school and in their various activities out of school. The student chooses the form of expression appropriate to his purpose or the purposes of the class—

letter writing, record keeping, story telling, or the longer essay-type of exposition—and in relationship to these learns his writing, spelling, grammar, pronunciation and enunciation. The trends have been (a) away from the study of the many specialized aspects of expression as subjects in themselves to the selection and interrelated use of all aspects as needed in situations calling for oral and written expression; and (b) away from almost exclusive attention to structure and the logic of relationships to improvement in usage, that is, from language as a science to language as an art. This shift in primary emphasis from science to art is, pragmatically, what has been involved in the shift from the special to the general in language instruction.

These trends are clearly observable in the teaching of foreign languages. Until very recently foreign language instruction in the high school has been part of special programs traditionally aimed at the satisfaction of college entrance requirements. Teaching has stressed the structure of the language and the science of form and word relationships in written composition. This approach was preferred by teachers in many schools who were unable to employ the language as a means of oral communication. Consequently language teaching lost vitality and utility. Interminable time was spent in dotting the *i*'s and crossing the *t*'s. Only a select few, it was thought, could learn the language. Experts were reported to have claimed that it takes fourteen years to learn the Chinese or Russian language even when we presume an initial aptitude. Others of more practical bent replied that this was a strange affirmation in view of the fact that little children in China or Russia, undoubtedly of the widest ranges of ability, were apparently expressing themselves in Chinese or Russian. What this signifies, of course, is that the culture teaches almost automatically and painlessly but it teaches the art, little of the science. It is left to the school to teach its students "to do better the desirable things they are going to do anyway" but, more than this, it is left to the school to teach the sciences as this becomes necessary to improve the arts. Now that some schools are beginning to include foreign languages in the general education program, they are finding it necessary to shift from the writing to the speaking of the language, from absorption in word form, conjugations, declensions and rules of grammar as ends in themselves to the use of the language as a means of communicating matters of importance from primary needs to esoteric special interests. It is recognized that this approach to the teaching of foreign languages promises more direct access to understanding other cultures, the value orientations of peoples and their distinctive ways of ordering their

social institutions. It is, undoubtedly, the best route also for those who would make the science of language their province, for those who would specialize in linguistics or cultural anthropology and for those who need to read science materials in languages other than their own. Viewed in this way foreign language is seen as an integral part of general education and as a source of many special interests and special programs.

Among the language arts, the teaching of literature has over the past thirty years reflected most clearly those responses to the influx into the school of students of widely varying ability and vocational objective. The various forms of literature (at one time each form was virtually a subject in itself) were brought together in one course and the accent in teaching shifted from the analysis of the literary form into its structure elements to the enrichment of living and understanding through vicarious experiences. Formerly, teacher and students were engaged in dissecting a particular piece of literature, for example, Dickens' *A Tale of Two Cities* or Shakespeare's *Macbeth*, and in identifying and classifying the structural elements. By an apprehension of the science in this way, they assumed that many would be enabled to become literary artists. Today the presence in the high school of those who are obviously not embryonic Miltons or even Eddie Guests has raised the question of what general values literature has for all people. The answer to this question has been found in the fact that in literature, students may live broadly and deeply. Throughout the course, their teacher and they may explore many forms of literary expression in their relationship to universal human experiences which are the centers of interest and subjects of study—friendship, man's shrines, patriotism, altruism, the family circle, and the conquest of self or the conquest of nature. Of course, in this plan some consideration is given to the structural elements of particular types of literature but for the class as a whole this is not primary.

In secondary schools too small to support special classes, the student who is apt and who generates considerable interest in literature should be able to study, with a great deal of independence and with whatever guidance is required, the technicalities of structure, the mechanics and dynamics of production, and to apply these in creative activity. In brief, he should be able to pursue a special program while retaining his affiliation with the general group. If such a student is in a school large enough to support special interest groups, he may be able to enroll in a class in creative writing.

Closely related to literature, and to science and social studies also,

is the matter of teaching reading at the high school level. It is not within the province of this discussion to consider the causes of retardation in reading and the validity of various remedial measures. For our purposes, it is sufficient to make the point that reading is general or special as the content with which it deals is general or special. Progress educationally is a developmental process and developmental reading continues throughout high school and college to be a responsibility of many of the teachers.

This responsibility cannot be discharged on the assumption that reading is just a mechanical matter of sounding and defining words. It is rather the process of interrelating many varied experiences, drawing meanings from these and associating these meanings with symbols that are almost infinitely varied in their combinations and permutations. It is, therefore, not a simple process that is mastered once for all. As the student moves into the organized bodies of knowledge with their own symbols and formulas, their own technical terminologies and special vocabularies, in short, their own languages, he must to a degree learn to read again. Each special field has its own special language and one who would succeed in the field must learn its language. This can be demonstrated rather dramatically by confronting an educated person with a highly generalized statement which epitomizes considerable philosophy or history and requesting a translation. This sentence taken from H. G. Wells' *Experiment in Autobiography* may serve the purpose: "It will be a symphony of voices from Mexico to Tierra del Fuego; for the variety of their ethos is great, and in Plato's sense, they have the music." The reader will want to know the context and, if he is sufficiently intrigued, he will want to review his Plato. This may be in part the answer to the high school teacher who says, "They cannot read when they come to us." And, perhaps in lesser degree, this may be the answer to the college teacher also. Let the teachers learn to teach the reading demanded by the special ideas and experiences with which they deal.

The language arts have been treated here at some length to illustrate the changes in emphases and in the components of the program which have come about as the selective school has been converted into the common school: (a) the bringing together into broad fields or into larger units of the specialized aspects of study that once were taught as discrete subjects; and (b) the shifting from the science of the subject as a primary consideration to the subject as an art; (c) leaving concentrated or intensive study of the science to those capable of a degree of specialization appropriate to their ability and maturity.

Reference will be made to the other arts to indicate that similar changes have been taking place in all fields, the social arts, the "experimental" arts which have produced the physical and biological sciences, the fine arts, the art of quantitative reasoning, the practical arts, and the physical arts.

Social Arts

When we review the changes which have come about in the social studies we are compelled to recognize first of all that the very term was a concession to the requirements of general education. Social science had been the descriptive label used to cover courses in economics, political economy, sociology, geography, ancient, medieval, modern United States and English history. Each was presented as a separate subject. As history has broadened its scope or, as in world history, been required to enclose its content within narrower bounds, it has become more highly generalized. Today, the expression "social living" is heard frequently in connection with programs concerned with group behavior and institutional organization suggesting that some in this field would take the whole realm of social activity for their province. From the study of the structure of institutions, of principles and laws which seem to underlie their operation, these courses move into realms that are without bounds and, therefore, lack the bases for finding direction and measuring progress. Perhaps the time has come to recall that, in school, the activity, the behavior, the art has a twofold purpose: (a) to provide the student opportunity "to do better the desirable things he is going to do anyhow," that is, to improve the skills, the techniques, the procedures, in brief, the technology; and (b) to enable the student to apprehend those meanings, that will make him as resourceful and adaptable as his capacities will permit for the varied, changed situations that inevitably ensue. The meanings in mind here are the theories and/or principles which constitute the science. Without these a social system can neither be described nor improved.

In this connection it may be helpful to ask, "What is the function of history in the general education program for all boys and girls?" The question compels us to conceive of history not only as a methodology and a body of knowledge but also as fundamental social values which are premises for thought and action and as experiences which involve these values in the everyday affairs of men. History like literature to which it has strong kinship must be clothed with blood and sinew and infused with emotional tones and overtones thus enabling the student

to recapture the event and to identify himself with it. Implicit in the content which the school selects are these basic values which are bits of wisdom wrung from the sweat and tears, the aspirations and the achievements of those who made our history. Surely, no student should pass through high school in this country without knowing in a nuclear and vital way what these values are, how they were wrested from life, how they have grown in meaning in the long chain of happenings which constitutes our record as a nation, how they are lost and rewon, and how they obtrude themselves into our life today.

All of this suggests the necessity of revising and redirecting the teaching not only of United States history but of world history as well. In this day of spreading science and technology, and of rapid communication and transportation, cultures diffuse and fuse almost, if not quite, on a world scale; the psychological, the economic and the political foundations of a growing community and a shrinking world are being laid as the tapping of new power breaks the old community at center and circumference; the old battles between power as an end in itself and man as an end in himself are being fought on a grander scale; the need to cross old latitudes and longitudes challenges man's fears and insecurities as never before. All these are world history and they touch our lives constantly. In a day when man has or thinks he has for the first time the means of understanding and realizing himself, and when the power within his control is literally world-shaking, it would seem that the original purposes of world history should now as never before be apprehended by virtually all students. All this includes the history of the East which has been too often slighted and geography which is essential to an understanding of the course of events.

Among the most drastic changes that have occurred in the social studies are those that have resulted in such courses as civics and problems of democracy. They may be viewed as the first core programs in miniature form. In the beginning, social studies merely juxtaposed in one course a little watered-down political science, economics, political economy and sociology. After a while these subject classifications tended to blur and the organization of content began to disregard conventional divisions. This was particularly true where the problem approach determined the selection and use of material. Today, in many places, what was once the civics course includes consideration of personal problems relating to health, education, the opposite sex, home life, work and recreation. The problems of democracy course too has gone through a metamorphosis and now,

in schools where it has retained its vitality, concentrates upon such matters as home and family living, sex education, the organization and operation of political and economic institutions and social agencies, and the world of work.

This brief and incomplete review of the teaching of the social studies in high school may be sufficient to illustrate the facts that: (a) High school social studies courses have tended to overlap and combine into broad fields. (b) In a relatively short time these subjects have moved from organization and presentation as social sciences to the organization and presentation of units drawn from the almost boundless realm of social living, past and present. They have moved from the study of economics, to cite one example, from the theories and principles which give insight into the operation of the economic system, to such units as "Selecting Furnishings for My Home," "Using Leisure Time," and "Being a Wise Consumer." (c) In this rapid movement from economics as a science to such activities as may be carried on in the units mentioned above, teacher and pupils may, in too many instances, lose sight of the theories or principles which should in part determine the selection and use of content. To come to grips with many aspects of the problems implicit in the units mentioned above, it is important that such economic terms as land, rent, interest, capital, wealth, wages, value, law of scarcity, law of increasing returns, law of substitution, price index and mixed economy be made increasingly meaningful. To understand why it is that total farm income may fall even though farmers and nature working together produce a bumper crop may be more important to more people than to know the relative superiority of one cake mixture over another. To understand, as the embodiment of a principle in political science, the Fifth Amendment to the Constitution of the United States may be more important than to learn the artifices which make one acceptable to the opposite sex. (d) There is need in schools for the rediscovery of the social sciences, the hierarchies of concepts, theories and principles which mark these fields as distinctive bodies of logically arranged meanings. Even though economics, psychology, history, sociology, political sciences, cultural anthropology and geography cannot claim the certainty which seems to distinguish the natural sciences, from these areas are drawn theories and concepts which, with those drawn from the other sciences, lie at the heart of the general education program. Some students, of course, will approach these fundamental ideas slowly through the medium of social living. Others will approach them directly and immediately and make them the objects of special study. They may even ap-

ply them creatively to the improvement of social practice and to the enrichment of theory itself. (e) For those who have special interest and ability in these subjects, medium size and larger high schools should offer special courses in the social sciences. Such courses should be available to those who have the interest and the intellectual maturity necessary to grasp the basic concepts, theories, principles and modes of thinking which mark each of these subjects as a distinctive discipline.

Experimental Arts—the Natural Sciences

The history of the teaching of the natural sciences evidences virtually the same trends as does the teaching of the social studies. The direction is clearest in the teaching of biology. First of all, this subject represents a union of two fields which were at one time taught separately, botany and zoology. They were the companions and, in some instances, the forerunners of physiology, the chief value of which for students seemed to be to assure that the bones of the human body should be repeatedly counted, named and memorized. Botany and zoology were at the outset avowedly premedical in purpose and this slant continued to shape the content of the course for a number of years. In the twenties, however, the course began to respond successfully to the need for generalization. More frequently content came to be organized around the life processes of the organism and the major purpose came to be to demonstrate through the various forms of life from the simplest to the most complex that each form is adapted by structure to function effectively in its own environment. More recently, the scope of high school biology courses has been broadened to include what might be termed psychobiology, social biology and ecology. This course as it is organized today may lay claim to being one of the most valuable offerings in the general education program. It can comprehend and present in a most vital way many of the learnings now contained loosely and diffusely in so-called core programs. Indeed, in its enlarging scope it bears upon a concept that is basic to all the social sciences, that is the concept which involves the pressure of population upon resources. Without some specific analytical study of the relationship between these two factors, it is impossible intelligently to build a schoolhouse or devise a tax law. This one aspect of the study of biology, involving population structure and movement as they are affected by the availability of resources, suggests the many possibilities for specialization that are an organic part of general education.

The solution to the problem of having science teaching conform to the requirements of a vital program of general education lies where many schools seem unable to find it, in the organization and direction of laboratory activities. This does not mean that formally organized science laboratories with pretentious equipment are necessities at all levels of the school program. The essence sought is authentic scientific thought and this may be achieved with simple improvised apparatus, often found in the school environment where biological balances are being destroyed and may be restored on a higher level. Erosion may be controlled, injurious plants and animals replaced by those of economic value, the chemistry of the soil improved, and something learned about the process of photosynthesis and the interrelatedness of plants, animals and material resources. All students learn with varying degrees of skill the technology required by this conservation project. Those who have the necessary mental maturity and interest may study the science implicit in this large group activity. They may determine those chemical elements in the soil which trigger plant growth, the theory which explains photosynthesis and the precise nature of the interrelatedness among plants, animals and soil. Success in restoring ecological balance will illustrate how the art involves the theory and the theory informs and elevates the art.

This brief consideration of the teaching of science in the high school may serve to illustrate that: (a) The movement of science into the general education program has led to a tendency to interrelate the teaching of the natural sciences. (b) The natural sciences are based upon and grow from the art of establishing in theory and validating by experiment the relationship between two sets of circumstances or phenomena or variables. (c) These may be termed the "experimental" arts. (d) The laboratory situation is the setting essential to the practice of the art whether it is considered as a part of the general education program or as a specialized offering in the curriculum. (e) All pupils throughout their elementary and high school programs should have appropriate experiences in these arts. (f) The pupils who are intellectually mature for their age should have appropriate opportunity at all levels to base their experiments upon as much of the subject discipline as they can grasp at the time. This means that they should have direct access to the sciences as bodies of validated knowledge, principles and laws, systematically and logically organized.

The National Manpower Council points out that in the past fifty years the number of those who work in the sciences and professions has been growing almost twice as fast as the total population. In

1900, there were about one million men and women employed in scientific, professional and related fields. At present there are about five million. The number and percentage in the total labor force will undoubtedly grow rather rapidly. In contrast to this trend, secondary school enrollments in chemistry, physics and academic mathematics have been almost static since 1930. In fact, in a number of schools and school systems in the nation there are actually fewer pupils enrolled in the physical sciences, in trigonometry and geometry than there were thirty years ago. This divergence is no doubt due in part to the fact that our schools which are experiencing the influx of widely variant economic and social groups have not yet learned how to relate the interests and capacities of these groups to the goals which lie through the mathematics and science disciplines.

Of those students capable of making a score of 120 or better on the Army General Classification Tests, 16 percent of the total secondary school age group, only one half go on from high school to college. This growing discrepancy between the demand for scientists, professional personnel, and technologists and static enrollments in science and mathematics in senior high schools may be due in part also to the fact that the teaching of these subjects long established in the curriculum and enjoying the greatest academic respectability has become complacent and, in too many places, arid. This, of course, bears upon the need for teachers who have a competent grasp of the content involved and who can teach imaginatively and creatively. Finally, it is due in part to the fact that some small and medium sized high schools are convinced that they cannot justify teacher time and special offerings for relatively few of their students. They confuse specialization with segregation.

Throughout the general education program at all levels there should be units in science which have to do with the conservation of our mineral resources, the improvement and conservation of our plant and animal resources, the control of parasites, insect pests and rodents, the fight for better health for all, the changing forms of energy, putting air and water and electricity to work, machines in the home, aeronautics, television and so on. As related aspects of such units of study, some students, in accordance with their ability and maturity, may actually work on such matters as chemical elements and compounds, atomic structure, formula writing, alloys, the action of gases, how to measure heat and light, how light may be refracted, how colors are made and so on. Experiments implicit in the topics mentioned above should continue to be a part of general education throughout the

junior and senior years of high school. At the tenth grade level they are frequently within the context of biology, which has already been described as potentially a stimulating course; at the eleventh and twelve grade levels they fit into the physical sciences conceived as a unified offering.

Chemistry as a specialized course is usually taught in the eleventh grade and physics in the twelfth grade. In senior high schools with enrollment under 500 students, chemistry and physics may be taught in alternate years. In these and in larger schools, even in selective science courses, there will be a fairly wide range in the abilities and interests of the students. Here the quality of teaching continues to be the major factor making for effectiveness and for the inclusion of all students intelligently and satisfyingly in the learning process. A qualified, understanding teacher adapts science activities and the mathematics involved to the ability of the individual. In some very small high schools dedicated members of the staff are meeting promising students before and after school and during the school day whenever this is practicable to plan with them their special science programs and to guide and instruct them in their work. In both large and small high schools teachers are finding in the science club and the science fair a means of feeding and extending interest in the early identification of those who have the potential for service on the professional and scientific levels. But, if guidance is to be effective in this role, it will not confine itself to canvassing resources which make it possible financially for students to attend college. Family patterns and orientations are involved in vocational choices. Guidance personnel must understand this and learn how to affect for good the values and motivations of various cultural groups.

The potential of our population for effective service on the professional and scientific levels is not known. The National Manpower Council, as has been mentioned, estimates that this nation is not tapping a reservoir containing one-half of our best talent. Actually the reservoir is much larger than this. Students who have made a score below 120 on the Army General Classification Tests are doing acceptable work in college. Besides, the generation of drive or the overcoming of concealed physical handicaps, emotional blocks, cultural disadvantages or the effects of instructional malpractice may result in confounding the best of predictions.

The experimental arts practiced in laboratory situations in and out of doors require not only that theory be grasped with increasing understanding but that deftness and manipulative skill be also acquired in

increasing degree. The *Scientific American* reports that scientists successful in research possess varying degrees of intelligence but they all have intense interest in their work. They have also a high degree of neuromuscular control necessary in the experimental arts which they employ.

Arts of Quantitative Reasoning

Trends noted in the subjects discussed to this point are discernible also in the activities involving quantitative reasoning. Instead of following a stereotype or one fixed pattern of manipulating symbols, as was once the common practice, students in the better situations today may conceptualize and reason in accordance with capacity and intellectual maturity. Through the use, first, of concrete materials—beads, blocks and pencils—and, then, of semiconcrete materials—pictures and drawings—students learn that there are various ways of putting together (addition and multiplication), taking apart or separating (subtraction and partitive division), and comparing (subtraction and division). For example, 23×22 may be thought of as 6 40 60 400 or 40 6 400 or 46 460. The apt students will conceptualize and complete the process most expeditiously and check the results. The slower students will be less direct and more laborious in their reasoning. At different points in the progression from the first to the twelfth grades learners will reach the limits of their competence to deal with abstractions. However, it remains important that they maintain skills and apply them in varying situations as long as they remain in school.

As pupils progress through elementary and high school, they may in accordance with their maturity and ability be introduced to appropriate concepts from the various branches of mathematics. Algebra may contribute to the general education program such concepts as general numbers; combinations of literal numbers; equation as a special kind of equality; constant, variable and function; term and factor and so on. Geometry may contribute point, line, plane, geometric solid and combinations of these; deductive reasoning, nature of assumption, nature of proof; parallelism; relation of figures, angular measurement and so on. Trigonometry may contribute indirect measurement; functions and ratios as applied to angles; logarithms and so on. The making of charts and graphs and statistical measurement may also represent special opportunities within the general education program. These special elements should be seeded into the program during the planning of the curriculum and into the awareness of the teacher. In almost any grade from the sixth on, and particularly in the junior and

senior high school years, these elements will for the more able students generate special interests which may be followed in their various ramifications as far as time and capacity permit.

The fallacy in fixing the teaching of algebra, geometry or trigonometry at particular grade levels derives from the fact that students of the same age vary widely in maturity and ability. No doubt, there are a few who could study algebra successfully at the sixth grade level. Others are not ready for it until they reach the tenth or eleventh grades. Pegging it at the ninth grade level means that it comes too late or too soon for many students. This dilemma can be resolved to some extent by the employment in general education of concepts from algebra and the other branches of mathematics meaningfully as they have application in the activities and enterprises under way. Consideration of their usefulness and their value to some students as special opportunities should, as has been said, have weight in determining the selection and conduct of activities. This is among the adaptations which must be made in the program that slow and rapid learners may cooperate for the achievement of common goals. Another partial solution to this problem lies in the obvious fact that first year algebra or first year geometry covers whatever content is taught that year. In beginning algebra, some students may need almost the whole year to master little more than the fundamental processes while some of their colleagues in the same period of time reach an advanced position in what is termed intermediate algebra. It does not necessarily follow that all students in the first group are hopeless mathematically.

Medium size and larger high schools generally offer special courses in algebra, plane and solid geometry, and trigonometry. A few are able to offer calculus. To meet the need for special mathematics of a few pupils in small high schools, resort may have to be made to instruction before and after school, in free periods during the school day, and to correspondence courses and tutorial services at school expense.

The illustrations of trends given here have been drawn from the language arts, the social studies, the natural sciences and mathematics. The same directions are discernible in the history of the teaching of the fine arts, the practical arts and what we might term the physical arts. It has been said that the first duty of the school is to teach better the desirable things the students will do anyhow. This must mean that the first duty of the school is to refine the skills, the techniques, the procedures which constitute the art. The second and inseparably

related duty of the school is to teach the meanings, the theories, the knowledge and principles necessary for the elevation and advancement of the art. Students differ also in their ability at the time to grasp the meanings abstracted from the exercise of the art. For some this aspect of the study becomes a specialty. They are sufficiently mature intellectually to give it their concentrated interest and attention.

Theses Relating to the Organization of General and Special Programs in the Secondary School

As the school—first the elementary and then the secondary—has felt the impact of the widely varying interests and aptitudes represented in the constantly expanding student body, it has responded by revising the content and organization of the various subject fields. The changes which took place mark conversion of material appropriate for special selective programs to material appropriate for general all-inclusive programs. They give clues as to distinctions between what is special in education and what is general. They are pragmatic clues. They may not represent final and complete explanations but they do have the virtue of having been tested in actual classroom situations and of evolving from actual experience.

These clues may be summarized and certain conclusions stated in the following set of interrelated theses:

1. The secondary school should develop a well-rounded program of general education.

Those who undertake the revision of junior and senior high school curricula should recognize at the outset that the secondary schools have never had well-rounded programs of general education. In the "constants" required of all students regardless of the special curriculum elected, the senior high school has the rudiments of one. These should be expanded to include, not just the language arts and the social studies, but all the arts in proper relationship. The selection, the organization and the use of content should be determined by a consideration of meanings which promise longest and widest utility.

The general education program at the secondary level should exact less of the school day than at the elementary level but, within the time devoted to it (about one-half the day both in junior and senior high schools), it should comprehend all the arts interrelatedly. These, as has been suggested in foregoing paragraphs, are the language arts, the social arts, the "experimental" arts, the arts of quantitative reason-

ing, the fine arts, the practical arts and the physical arts. The normative arts should be included too, for at every stage of the educational program it becomes important to set standards of ethical, esthetic and rational excellence, to have students see them exemplified, and to induce learners to incorporate them into their own performances. The culture which the school seeks to preserve and improve involves not only ideas and meanings, but choices and actions. This culture is concerned with expression and living involving all the arts in interrelationship.

This conception of general education in the secondary school suggests the basis for making adaptations in teaching to individual differences both in the skills, techniques and procedures comprehended in the arts and in the body of organized meanings comprehended in the sciences. It proposes also a way of resolving the dilemma of having students early in their school careers attempt goals that are beyond their capacity at the time or to commit themselves to programs that are aimed definitely and exclusively at the skilled and semiskilled vocations. Within the general education program, differentiations in requirements and expectations can and should be made in degree of skill achieved at the time, in the perfection of technique, in the breadth and depth of meaning apprehended, in the ability to hypothesize, generalize or conceptualize within the data given, and in the maturity of the art expression. Levels of performance in the pictorial¹ and social arts² from the infantile to the adult have been described and placed on graded maturation scales. This has been done in part also for the practical and physical arts. With the sources of information now available it would not be too difficult to develop such scales for the language arts and the arts of quantitative reasoning.

The junior high school has to date demonstrated greater interest in general education than has the senior high school. In core and other curricular patterns designed to express interrelationships among the various subject fields it has made considerable progress in exploring ways of developing and uniting the components of the general education program. Whatever success it has achieved in this area, however, affords no ground for complacency. There remain at both the junior and senior high school levels at least five neglected needs that have to do primarily with relationships between the general and the special:

¹ Viktor Lowenfeld. *Creative and Mental Growth*. New York: The Macmillan Company; 1952, 1953.

² Edgar A. Doll. *Measurement of Social Competence, A Manual for the Vineland Social Maturity Scale*. Educational Test Bureau, Educational Publishers, Inc.

a. The need for drawing content for general education or for core curriculums from the theories, principles and organized bodies of knowledge that are the products of research, scholarship or professional practice, not from some "wide open" field labeled, perhaps, personal and social living. A study of foods in relation to health may conceivably lead us to understandings which beneficially affect widening areas of one's life and give some students opportunity to study closely and scientifically interrelationships between plant and animal life. In contrast, a unit labeled "Having Fun at Home" or "How To Be Popular" or "How To Get Along with One's Parents" may lead to activity determined by the current vogue or by its value as entertainment or by considerations of expediency. In these instances the activity is not truly educational. Science cannot inform the arts.

b. The need for teachers to have a competent grasp of the content involved. The teacher who draws upon the language arts and the social arts needs to have a keen awareness of the many possibilities and opportunities for teaching which are in these fields. If he is required to encompass in his teaching the language arts, the social arts, the "experimental arts" and the fine arts, some of his teaching will probably be very thin, some needed instruction will possibly be neglected entirely. This raises the question of the education of the teacher and the number of the arts in which one person may be expected to become competent. The teacher should have special knowledge of his fields or should have ready access to specially trained resource personnel.

c. The need for exploiting and developing the special interests which emerge from the general education program. This is a recognition of something the schools to date have tended to overlook or deny. There are some pupils at every level of the program, certainly from the intermediate grades on, who have the capacity and the inclination to delve into the sciences of the various subjects. The opportunities for learning should be such as to permit and encourage the interrelating of the general and the special. Those pupils who have the interest and the ability to study the structural form of music, art, or literary composition or the social or natural sciences as systematically organized fields of inquiry should be encouraged to do so in accordance with their maturation and appropriately to group purposes to communicate their special learnings to the class. A boy in the seventh grade in a consolidated high school in a rural area, in connection with a class project, undertook to rebind with copper hoops, a large wooden bucket, called a keeler, used in the maple

syrup industry. The staves of the bucket sloped outward so that the top of the container described a larger circle than did the bottom. The hoops two inches wide were to be cut from a large sheet of copper. The upper edge of each hoop had to describe a larger circle than the lower edge of the same hoop. How could he draw on the sheet of metal the pattern for each hoop and cut it so that it would fit the bucket? The teacher referred the boy to geometry, and the young man succeeded not only in making the hoops but in developing an interest in geometry.

d. The need for exploiting and applying in the general program the competencies developed in the special program. This has reference to the use in general education programs of what students learn in special classes or through special, individual study in connection with the regular classes. The elementary school child who plays the piano can contribute to the general program when rhythmic activity or group singing is under way. The junior boy who is studying the chemistry of color may reduce his findings to nontechnical language and report them in the general education class when pertinent.

e. The need for assuring that as opportunities to teach and to learn techniques, skills and applicable knowledge arise, they shall be exploited and the competence of students in the various arts continually advanced. The program organized and administered to permit the drawing of content from several related fields gives rise, theoretically at least, to opportunities to teach procedures, techniques and skills most effectively when their relation to purpose and use in significant situations is clearly evident. Suppose, for instance, a junior or senior high school class is studying the problem of zoning for residential, business, industrial, commercial, educational and religious purposes. Clarification of the problems involved will undoubtedly require precise definitions, identification of the issues and their presentation in statements written or spoken and perhaps in cartoons or other forms of graphic and pictorial expression, research techniques including a grasp of elementary statistics, correspondence, interviewing, reporting, and some of the basic concepts which are the tools of the sociologist, the economist and the historian. The test of general education lies in teaching situations such as these. When it becomes necessary to teach the specialties involved in the study and so progressively raise the performance of students, is the teaching competence immediately available adequate for the task?

The writer has explored three types of administrative practice which give some assurance that general and special programs of

education will be interrelated in the ways suggested: (1) Teachers who have special training in art, music, science or speech visit core or general education classes on regular schedule to help with problems within the fields of their special competencies. It is their responsibility to improve skills, techniques, procedures and methods in situations where their usefulness is obvious. (2) Problems in art, music, reading, speech or science which arise in general education or core classes and which are beyond the competence of the regular teacher there are referred to the appropriate teachers in the special fields to determine in part content and instruction in these classes. The art class may, for instance, have to teach students from the general education program how to get the proper proportions in drawing of the human body, how to get perspective and appropriate value in their pictures, how to indicate in an interior scene that it is winter outside, how to show that the bucket is old. (3) All students in the general education program in a given high school are organized into four smaller or representative schools within the school. One of the smaller schools may include the ninth grade only, one the tenth, one the eleventh, and one the twelfth. However, it is possible that two of the smaller schools may include both ninth and tenth grade students, and two of them both eleventh and twelfth grade students. There is also the third possibility that all four of the smaller schools may include ninth, tenth, eleventh, and twelfth grade students. Each of these smaller schools within the school has a section of the building for its own general education program. Each of these sections of the building has its own classrooms for English, science, mathematics, social studies and foreign language, if any, equipped for the special purpose with a teacher in charge who is specially prepared in the subject. There is also one room large enough to accommodate the whole of the smaller school where all teachers and students may meet to plan to realize all necessary general education values and to make arrangements for effecting whatever interrelatedness among subject fields is desirable. The larger room serves also as an auditorium for the school within the school where it carries on its common social and educational activities. For its specialized courses and curricula the students in the smaller school move to other parts of the plant, to the music room, the gymnasium, the shops or the commercial or home economics laboratories. By providing for cooperative planning among all teachers and students in the general education program and for the teaching of each subject in the program by a teacher specially prepared in the field, it is expected that both general and special values will be realized to the maximum.

2. *The school, first by flexible grouping within the class and later both by flexible grouping within the class and the segregation of like-minded students of similar interests and abilities, should give increasing time and opportunity through the grades for extended exploration of the specialized aspects of and creative effort in the language arts, the fine arts, the experimental arts, the social arts, the practical arts, the art of quantitative reasoning, and the physical arts.*

Without intent to categorize learners with any degree of finality the school may, for increased teaching effectiveness, bring together into one class or, if that is not possible, one group within the class, those who require a maximum of individual attention, the retarded students, and the most rapid and able learners. Valid objections cannot be made to such grouping per se. The nature of general education is violated when homogeneous grouping and segregation of students divorce them and their activities from the humane values which must be determinative and the distinctive purposes of this program in the schools. This danger is clearly evident in those situations where children retarded in reading are placed in so-called remedial classes to be drilled on insignificant material unrelated to those educational ends and to that content which are motivations to reading and the major means to success in teaching it. It is present also, if not so clearly evident, in science and social studies classes which are carried on in disregard of the broad social effects of programs and discoveries in these fields and the moral obligation of those who work in these areas to serve the commonweal. Whatever the arrangement, the school must organize itself to conserve to the maximum those values which come from cross-sectional association.

Two considerations pertinent to this effort to distinguish what is general and what is special in education have been noted: First, as the role of certain subjects in the total school program has shifted from the special, selective, vocational and prevocational function to service to all in general education, the accent has shifted from the subject as a science to the subject as an art operating interrelatedly in the total cultural complex. The accent has shifted from primary preoccupation with form, structure, logical relationships and arrangements, abstractions, and theories and meanings of wide and continuing usefulness to primary preoccupation with overt activity, with doing, with practice and exercise in what are presumed to be real life situations. Second, there is not inevitably a dichotomy between the two. The activity becomes questionable when it is carried on without reference to theories, principles or basic concepts, when the activity fails to

convey these meanings most expeditiously and most economically, that is, when it is divorced from intellectual content.

These facts would seem to support programs which even at the elementary level give some pupils opportunity within the framework of the class to do essentially what the historian does, or the scientist, or the creative artist. We have already said that one-half the school day at both the junior and senior high school levels might be devoted to the general education program where the accent is on values and meanings of widest application and greatest durability in the common culture. This leaves about one-half the school day at both the junior and senior high school levels to be devoted to a variety of special opportunities in the language arts, the fine arts, the natural and social sciences, and the practical arts. These courses should be aimed at giving the students enrolled genuine experiences in the mode of thinking and in the meaning which distinguish the various fields of inquiry and creativity. However, it must be stated here as a precaution that the very nature of our society precludes the encouragement of an intellectual aristocracy or a social elite. During this one-half day devoted to special offerings at the junior and senior high school levels, some pupils will continue to learn self-care and, in the interests of their own well-being and the social good, prepare to give a modicum of service of economic value in a protective environment. Others will have special opportunities in arts and crafts, in industrial arts designed to develop adaptability, in courses in reading related to the content of the general education program, in agricultural and homemaking projects, and in other kinds of work experiences coordinated with the instructional program of the school. This last poses for the evolving high school a difficult and still uncompleted task. Education does not act in consistency with its own distinctive purposes when it resigns pupils to soda jerking, to pin setting or to helping accomplished carpenters. The school must insist upon its central task of selecting and directing activities for the understanding of all those values and concepts which should be premises for thought and action in our society.

It is questionable that any students should be allowed to spend more than two class periods daily in any special subject which is predominantly laboratory in operation. The secondary school of the future will not want to emulate the example of the present vocational shop courses which require that each student spend fifteen periods each week in automobile mechanics, electrical wiring or woodworking. The extension of special opportunities throughout the common school,

grades one to twelve, will obviate the necessity for such concentration at one level. Besides, narrow specialization in a skills subject in the secondary school seems indefensible in a day when scientists and technologists as never before must acknowledge and assume their social and moral responsibilities, when the character of the labor force is changing rapidly, and when automation is bringing into question the long-time utility of the isolated technical skills now taught in some high schools. These social trends have implications for both the general and the special programs. They stress sharply the importance of identifying early in their school careers those students who are capable and interested, of helping all students understand the role of science, and of helping students with special aptitudes in science and mathematics to see the social and moral implications of their work.

3. *High school programs of special education should be organized and operated so as to yield optimum general education values.*

Shorthand, typewriting and accountancy, as examples, can be related to content and situations that are personal and social rather than merely occupational. This should make for greater occupational proficiency rather than militate against it. The materials used in book-keeping should highlight and illuminate the principles involved and their applicability in the home, the school and the church as well as in the office. Typewriting is just another kind of writing that may be exercised on content of general education value by academic as well as by business students. Agriculture can be taught not just as a body of techniques and vocational practices but as a way of life in a rural and even in a suburban culture. The purposes of the program should be broadened to include the use of land resources for beauty and conservation. When its purposes are defined in these broader ways, it must be approached and managed as an integral part of the total program of the school. For agriculture students it would represent a way of approaching and making meaningful concepts basic in all of living, which urban boys and girls would approach through another set of circumstances. The same statements may be made of home economics. At present a very small number of high schools provide arrangements whereby girls may take homemaking courses, stenographic or typing courses and academic courses at the same time. Even a cursory examination of the content of these courses shows that in purpose and in practice they may be made to interrelate in ways that are most illuminating and productive. Such arrange-

ments in themselves do not make complete general education programs but they would seem to be movements in the right direction.

General education is the matrix wherein are generated and from which stem special interests. Whether one pursues his special interests within the general group or in separate segregated groups, he would retain his sense of relationship to the parent body. He should have opportunity at all levels of the program to see exemplified ethical, esthetic and rational standards of far-reaching import. He should have opportunity to weigh his own ideas and behavior against these, and progressively, in accordance with his own maturation possibilities, to incorporate them into his own performances.

The National Manpower Council has stressed the importance of establishing a sensible balance between intensive special training in a narrow field and education broadly based that makes for flexibility and enables the individual to cope with the changing demands that will be made upon him. With the college above and the junior high school below concerned with this need, the senior high school can hardly afford to remain inactive or indifferent.

Vocational Programs as Special Education

The term "special curricula" is most frequently used in connection with federally supported vocational programs, the business and commercial offerings organized in accordance with well-known patterns, and the opportunities in music and other fine arts which are expanded for certain pupils in senior high school and are generally regarded as prevocational. As has been said, latent in these are many of the values of general education as well as the values claimed by special education. However, if these values are to be realized, these programs will have to be revised, reoriented and redirected. To be convinced of this necessity, one has only to study the percentages of pupils completing these curricula who actually use the acquired skills in the particular work at which these skills were aimed. The exception, of course, is homemaking and this program is most successful where it is thought of as an integral part of general education involving both boys and girls. In contrast, the "trades and industry" courses on the senior high school level constitute by nature things apart from the general offerings of the school. As presently organized and operated they are too narrowly specific and too inflexible to yield meanings and instruments that may be applied to making life in dynamic America intelligible, significant and fruitful. Diversified industrial arts and crafts designed to develop ranges of skills and understandings

commend themselves as education of greater validity and utility. That their claim has urgency should be clear in view of the fact that automation is rapidly taking over the industrial enterprise.

The narrowing of the age range within which one is employable and the shortening of the hours of employment per day and per week are related to the rapidly expanding national income, the per capita output, the reservoir of capital supporting each worker, and the increasing body of knowledge, skill and perceptiveness that must be developed from the population by education. It would be wrong, perhaps disastrous, for a people in its provision for education to place in one compartment the technical "know-how" and "know-why" which its dynamic economy must command and in another compartment the arts and sciences necessary for the preservation and improvement of its culture. The two are inextricably interwoven into the whole cloth which constitutes the social fabric.

These truths have inescapable implications for the developing common school. Although it is not possible to project this school in precise detail, it is both possible and necessary to shape this emergent institution in accord with knowledge born of experience and the values that are basic in our culture. All who attend must be able to relate themselves to common purposes and have access to all the arts of our common culture. This does not mean that equality of opportunity shall be identity of opportunity. It does mean that pupils shall not be segregated by the work status of their fathers or by economic or social class. It means too that they shall be able to use all arts as described earlier, for the fullest realization of their potentials and for as much meaning as they can grasp and use. This is predicated upon the belief that the art precedes the science; that, intellectually speaking, the science is the precipitate of the art; and that pupils will range in their potentials from those who can grasp very little of the theory or general meaning of their acts to those who can think competently and creatively in the realm of abstractions. This is to admit that some pupils can be trained but not educated. The actual number is exceedingly small and, on the credit side, it may be said that by assuring that each shall use all the art and science he can apprehend, this school will be engaged actually in transmitting and improving the cultural heritage.

With these assumptions and premises stated and to some extent clarified, it is possible to consider the place and role of vocational education in the total program of the common school. The four inter-related theses which follow are focused upon vocational education.

They are adaptations of theses which have been discussed in the previous section as applicable to the total program of the common school.

1. Vocational education, as an inseparable part of all education, should be furthered by advancing the competence of the individual in the language arts, the social arts, the fine arts, the experimental arts, and the practical arts.

In connection with this thesis, it should be noted that, as the influx of students began the conversion of the secondary school into a common school, the solution to the problem of widely divergent individual differences was sought largely in the development of vocational programs. It is possible now to say that this solution has failed.

At all levels of the economic scale and at all levels of the educational ladder, technical proficiency is inseparable from the total complex of qualities that makes the person. The habits and attitudes of the individual obtrude themselves into the behavior of the worker and impair or enhance his competency.

A recent survey of vocational education in the New York City schools reports that the presence, in considerable number, of low ability persons among those who present themselves as graduates of vocational schools has impaired employer confidence in such graduates. The large number of employers who did not express any preference for vocational school graduates led educators in New York to the conclusion that some factors in the vocational program retard recognition. One of these factors, the report suggests, is probably poor selection of pupils. This weakness is reflected in the facts that, as a group, vocational pupils are older than those applying for admission to academic schools, have more defects, have more than twice the percentage of academic students who were absent for extended periods in their last term in the lower school, have on entrance to the vocational school a percentage with I.Q.'s below 90 that is more than four times greater than the percentage for academic pupils, but only one-fifth the percentage of academic students with I.Q.'s 110 or higher. In September 1949, about four-fifths of the pupils entering vocational schools were retarded one or more years in reading, one-third of them lagged three or more years. About one-third of these pupils had I.Q.'s below 80, one-tenth of them fell between 60 and 69 I.Q., and between two and three in every 100 had I.Q.'s below 60. Of the pupils in New York City classed with retarded mental development, 17 of every 18 who came from the lower school into

the high school in the year 1949-50, entered the vocational school.

The report points out that some program other than the vocational is needed for pupils of low ability. Industry has greatest need for employees with desirable personal qualities and good attitudes toward work. A suitable program should stress the development of these qualities, particularly in pupils of poor ability.

Evidently, in planning for individual differences, we must think not of vocational versus academic education but of the kind and quantity of both components of the program. In view of the apparent aptitudes, capacities and interests of the individual guided toward vocational education, how much of the practical arts, how much of the social arts, how much of the fine arts, how much of the language arts, how much of the experimental arts and quantitative reasoning shall constitute his program—and also how much any one art in relationship to other arts, and how much in relationship to abstractions and logical arrangements? For others, there may be a predominance of study within the framework of the organized fields of inquiry and creativity. However, a word of caution is warranted in connection with the projection of school programs for pupils who presumably have high academic ability. They, too, are in need of the training of the senses; they, too, need to learn to observe and to listen discriminately, to feel wide kinships, and to manipulate skillfully. Just recently, the author became reacquainted with a young man who has had these unusual experiences: (a) he was graduated from high school at the head of a large class, having taken honors in English, science and mathematics; (b) ten years after graduation—he had not succeeded in making any of the fundamental adjustments, to college, to a job, to the opposite sex; (c) he suffered a mental breakdown; (d) he had recently, on the basis of rigorous examination and without previous college experience, been admitted to advanced standing in physics at one of the country's leading universities. He made this statement to me, "In school, I held in contempt the use of the hands and of the body. When I was most ill, I was planning the organization of the world, not understanding that I was dealing with myths and fancies. In the Army, I learned that there is great satisfaction and health in using the hands and the body. I had to crawl under low buildings, bore holes in floors, and probe for contact with installations above me. Part of my therapy had to do with withdrawing from the world of unreality, which I was trying to organize, by living largely in physics where I work with facts that are measurable in a world that is controllable."

Perhaps another caution is in order. In most individual cases, it is difficult at any particular point to say with assurance and finality, "This is the intellectual status and potential of the individual." The removal of emotional blocks, of concealed physical handicaps, of cultural disadvantages, of the effects of educational malpractice, or the generation of a strong and continuing drive may confound the best of predictions. Organized labor, originally strongly favorable to vocational education, has become alienated at times by the attempts of school people to determine with finality early in the schooling of the individual the social and economic niche to which he shall be assigned. In writing to the School Commissioners of Baltimore City in May 1947, concerning their attitude toward vocational education, the Baltimore Federation of Labor quoted from an article by Ordway Tead in *The Educational Record* of April 1946: "Can we wisely continue with a total pattern of education which separates so sharply education for employment and education for everything else? There is needed a re-fusing and a reuniting of educational objectives so that every student becomes the best total person he can be as of the age when simultaneously he leaves school and becomes ready to make a start at an employment which is consonant with his special abilities."

Education in the common school should seek the fullest realization of the powers and potentials of the individual, no matter how limited these may be, rather than the whittling down of the person to tradesman or machine operator.

The National Manpower Council identifies five errors to which high school vocational programs are liable: (a) conceiving of these programs as intended for specific job training rather than for providing broad basic education; (b) tying the content of such courses to the needs of one or two employers in the community; (c) directing pupils with little drive and poor ability into these courses on the assumption that this is the best way of meeting their educational needs; (d) failing to provide all pupils, including the vocational, with all the mastery of the fundamental intellectual tools they can acquire; and (e) organizing and ordering the content of these courses in such way as to reduce the pupils' opportunities of going to college.³

2. *Vocational education, like all education in the common school, should aim at versatility, resourcefulness, adaptability, ingenuity.*

This thesis runs through both reports of the National Manpower

³ National Manpower Council, *Proceedings of a Conference on the Utilization of Scientific and Professional Manpower*. New York: Columbia University Press.

Council, the one on scientific and professional manpower and the one on skilled manpower, and the vocational education study in New York City to which reference has been made. In the reports of the Manpower Council such statements as the following are encountered: "Engineering schools were urged to resist pressures and financial inducements to set up narrowly specialized programs."⁴ Additional changes are proposed here, in line with recent modifications in curricula, which would provide the engineer with greater control over the theoretical tools required for his work, and with better understanding of the political, social and economic environment in which he functions. Such additional training costs as would be involved, it is maintained, would be more than balanced by the gains in competence and flexibility of the engineer.

In defense of an education for versatility and adaptability, the Manpower Council cites the increasing risk of using workers with restricted education in view of the growing capital investment per employee, the accumulating need for skilled personnel for the installation and maintenance of modern machinery, the emphasis placed upon versatility by businessmen and industrialists, the large degree of job mobility in our society, the continuous change in skills required on the job, the nature of the job itself which is such that it can be learned quickly in the doing under supervision or demands qualities and attitudes which are thought to be the product of an effective general education.

What we are dealing with here is the central problem of all education. Insofar as the school devotes itself to teaching a bag of tricks, to habituation in set activities, to that extent it is a training, not an educational institution. Insofar as it can communicate meanings that have wide applicability now and are likely to have continuing applicability for some time, to that extent it is an educational institution.

3. Vocational education as specific job preparation should be deferred to the post-high school years.

The report on vocational education in New York City schools, to which reference has been made, notes that the age and grade levels of these special programs have been rising. This marks a tendency now quite evident to defer specific vocational education to junior college and community college years. Both California and Wisconsin have placed two-thirds of their unit trade courses in the junior colleges and adult schools. In the high schools of the United States there are still many

⁴ *Ibid.* p. 85.

programs in trades and industries and in industrial education and this will probably be so for some time. But the trend in the direction of raising the age and grade levels of these courses is so strong and persistent throughout the United States that it must soon have an obvious effect on all vocational programs in the high school.

Many communities have abandoned separate vocational and general high schools and have united both in the organization of the total program in the comprehensive high school. As the claims of general education received recognition, vocational training was deferred to the last three years, then to the last two, and now in some communities to the junior college. This has been in line with trends in our economy where the total labor force is shifting toward higher levels of skill and technical competence and with trends which place increasing value upon discrimination, judgment and versatility.

4. Vocational education as an integral part of all education should recognize in its program and its pattern of operation, in its administrative policies, and in the designing of school plants that the community too is a laboratory and that many of the realities and facilities beyond school walls need not be duplicated intramurally.

This will have to come as the common school continues its efforts to adapt itself to a new clientele and a changing culture. Even while the schools have been installing power machinery at great cost, they have been conscious that many workers have been learning the skilled trades on the job. The school must put some limit on the duplication of power machines that soon are technologically obsolete. Many suburban and rural high schools cannot afford costly machinery, but this does not necessarily deny to their students practical arts experiences of great educational value. Some small high schools that could not afford commercial or business curricula because of the exorbitant per capita costs, have succeeded in teaching the skills needed in office work as these revealed themselves on the job. This was done for the postgraduates of the high school, and since the program was aimed at a group of some maturity was all the better for this provision.

All types of work experience programs at present operating need to be studied critically for their possible values in the coming years. Perhaps their chief vulnerability is that they attempt to relate English, social studies and arithmetic to the requirements of a specific job. If the theses we have elaborated have any validity, this is a wrong orientation. But work experiences which have to do with such mat-

ters as nursing, landscaping, floriculture, horticulture, animal husbandry, office practices, dietetics, and home management may involve arts and sciences of widest variety and represent most promising approaches to the problem of providing for individual differences.

Present attempts to relate school subjects narrowly to job requirements are reminiscent of the related science courses which vocational agriculture once demanded. In some of our small high schools, there would be five in agricultural biology and ten in academic biology. Actually, there were fifteen in a more or less diluted biology. It was found that such practices were not feasible administratively or educationally. We seem to be in danger of repeating the same mistakes today in our work experience programs.

Dr. Harold F. Clark suggests the possibility of revising the school attendance laws to permit the individual to attend the required number of days before he reaches age 21. This would allow the intermingling of work experience with study at school. The student might, for instance, complete the ninth or tenth grade, be employed full-time for two or three years, and return to complete his schooling; or other more desirable combinations might be worked out. This arrangement would undoubtedly have the effect of giving many students seriousness of purpose and maturity of outlook and background.

There is a most interesting, and perhaps significant, development in connection with school programs in training schools for delinquents. In one or two spots, camp programs similar to the old CCC have been set up. At present these programs are offered as special privileges for those 16 years of age and over with records of good behavior. Activities have to do with lumbering, reforestation, conservation, construction of recreation facilities, animal husbandry, and so on. There will also be formal instruction, but it will be carried on in an informal setting and will depend upon the activities for its motivation.

Certainly these and similar arrangements should be explored thoroughly as the school feels the impact of increasing numbers of pupils whose abilities, interests and cultural backgrounds range all across the community. If the common school now in the making is to survive, it will have to keep abreast of technological and scientific advances. It will not encumber itself with the tasks of other institutions and the machines that are more readily available elsewhere. Indeed it should come more and more to see the community as a laboratory where group and intergroup dynamics may be studied at firsthand and where science laboratories extend out of doors to hills and valleys and streams and sometimes to the deep woods.

Prospects in Curriculum Research

Kenneth Hovet

THE FOLLOWING discussion is an attempt to clarify some of the difficulties and problems of curriculum research to the end that there may be a better understanding of the complex processes of curriculum change. Even though the knowledge available at any one time seems to be much less than the knowledge needed for practical action, the hope of the research worker is always that human choices may become better informed than they are and human risks proportionately minimized. Our historians and philosophers and other students of human experience have been increasingly able to show the relationship of human choices to human survival as one society has followed another through the centuries. The curriculum of American schools is a reflection of the choices and value judgments that Americans are making at the present time, and the risks involved in choice-making are related to knowledge to the extent that knowledge has anything to do with the survival of a society.

A preliminary distinction should be made between two kinds of research in general, namely, (a) the kind that produces those resources called "systematically organized knowledge" and (b) the kind that produces the resources called "practical know-how." The first leads to tested knowledge of the conditions under which changes occur and the second to tested know-how of the practical ways by which desired changes may be brought about. Neither of the two is neutral with respect to values, but each is nevertheless value-oriented in a different way. The first is concerned with choices that must be made to increase knowledge as a growing knowledge system. The second is concerned with those choices that must be made to satisfy the wants and needs of human beings in their everyday living. Moral choices are the funda-

mental concern in all of the practical work of education, and the purpose of research is to inform the choices that are made.

The distinction between "pure" and "applied" research has become sharply clear to the community of American scientists during the past dozen years, especially to those scientists engaged in the research into nuclear processes. There had to be "basic" research in physics before the vast "technological" research leading to the development of the atom bomb. In times past, inventors were able to produce all kinds of new products that entered into everyday living, and such inventors were able to produce inventions without having to "lean upon" theoretical knowledge of basic processes coming from the kind of experimental work called "pure," "basic," or "theoretical" research. In many research areas at the present time, invention can proceed no faster than the kind of knowledge called "pure research" develops. The increasing realization within the community of scientific observers of the primacy of basic research has led in America to increased demands for funds to be allocated to basic research to the end that there may continue to be a developing and expanding American economy. Although the two areas of research prod and stimulate each other, the main flow is basic research followed or accompanied by technological research finally leading to new products and processes to satisfy the needs of people in their everyday living.

The profound complexity of making moral choices has become similarly clear and sharp with the increase of knowledge. Perhaps the best illustration of this was the painful awareness among physicists when they knew that they could create a weapon for human destruction just as easily, comparatively, as they could make a contribution to human welfare. There may be some unhappy balm for the individual who can make moral choices without knowing the consequences of his decisions. But when men *know* the consequences of their acts, when they are *informed* about the consequences of their moral choices, the burden of responsibility for decision-making seems almost greater than men of today are able to bear. Yet this is the burden that must be increasingly borne as knowledge develops and we become increasingly informed about the consequences of our acts.

Medicine as a field of work embraces the practical arts of the physician and the surgeon, a great variety of technological research of specific and practical interest to workers in medicine, and basic research in disciplines related to medicine. Significant advances in the field have come from bringing into active relationship the two areas of basic research and technological research, which ultimately

inform the practical arts of physicians and surgeons. Nothing in research contributes to making the modern family physician more "cold-bloodedly" scientific as he works with human ailments. Rather, he has simply become more informed in the practical arts of medicine than his predecessor of 1900, and his choices reflect greater knowledge of the consequences of his decisions. Medical research has also brought sharply into the light some of the moral choices involved in the provision for a larger number of older persons in our population, whose needs, interests and abilities must be met. The moral choices involved in the saving of human lives lead to further moral choices with respect to social policy.

Parallel developments may be confidently predicted for education as knowledge flowing from the research disciplines engaged in the study of human behavior grows and expands. In fact, much of this has been under way for many years, although the relationship of basic and technological research to the practical work of educators is often blurred in the mass of educational research. Furthermore, a great deal of that which characterizes even "a modern school" was a common practice long before there were any basic sciences dealing with the processes of human behavior. What we can predict is that technological research in education will become more closely related to basic or theoretical research in the behavioral research disciplines, each research area prodding and stimulating the other to a far greater extent than exists at the present time. As the results of this relationship flow into educational practice, teachers will still be teachers, as warm and as out-going in their concern for the welfare of pupils as teachers have ever been, but their moral choices will be more thoroughly informed with respect to the consequences of their decisions. A very complex moral choice in American education has in fact been in the process of decision-making for more than fifty years, and research into individual differences has contributed toward a greater knowledge of the moral choices involved: Is the entire educational system from nursery school at least through high school to be "the common school for all the children of all the people"? As knowledge from research informs our choices concerning the relationships between actions and consequences, our educational choices will be seen more clearly as the profoundly moral decisions that they are.

This chapter of the yearbook represents an attempt to develop certain ideas that have been suggested in the preceding paragraphs. What, for example, do we mean when we say "curriculum research"? What, if any, relationship need there be between "basic research"

and curriculum research? Is curriculum research primarily "technological research," or is it some different kind of research altogether? How, exactly, is the field of curriculum research to be distinguished from other research areas in the field of educational research? These and other questions are in need of clarification if we are to reap for education the benefits that curriculum research holds forth.

What Is Curriculum Research?

The beginnings of an answer to what we mean by curriculum research may be found in considering the various steps or stages through which research in general proceeds, whether it is basic or technological research. Many writers have stated the steps necessary in "problem solving" and the following statements are a review of these steps as they apply in the context of research.

1. **The original difficulty.** This at first can only be *felt*. It may be felt simply as "something is the matter" or "this won't work right." On a high level of abstraction, it may be felt by a scientist as a vaguely sensed "contradiction in a theory." The important element is merely this feeling of difficulty in a problematic situation. At this stage, both the artist and the scientist are on the same level—both are seeking a *form* in which the vague feeling they have can be expressed.

2. **Formulating the difficulty into a problem.** At this stage, the most important element in the situation is *form*. The need is to get the original difficulty stated, or expressed, in some kind of form, that is, "formulated." In the basic research disciplines where there is an abundance of "theoretical formulations," formulating a difficulty into a problem is comparatively easy. In the technological research field, there is help when technology can test the application of laboratory research in the practical field, that is, technological research can "borrow" the theoretical formulation. Educational research as a technological research field could similarly profit by tracing problem formulations back to the theoretical formulations of the behavioral sciences, rudimentary as some of the formulations nevertheless are.

3. **Solving the problem.** The procedures at this stage are frequently almost routine, once a difficulty has been adequately formulated into a problem. For example, much progress has been made in the methodology of measurement and statistics and appropriate experimental designs. The methodology of problem solution in educational research is much more advanced than the methodology of problem formulation.

4. **Clearing up the original difficulty.** If there is no real difficulty to begin with, of course, a problem solution will clear up nothing. This is often the case when a body of someone's collected material is "made" into a problem. If, however, a real difficulty is formulated into a problem, the problem solution may or may not clear up the difficulty. If it does not, the research worker must start again from the beginning and try to formulate more adequately the original difficulty into a problem. The "crucial" experiment is simply a "lucky" formulation of an original difficulty into a problem, and such luck is not the prevalent experience of research workers.

The main point of these four steps may be stated as follows: The solving of a problem (step 3) will accomplish a clearing up of the original difficulty (step 4) *only to the extent* that the original difficulty (step 1) has been adequately formulated into a problem (step 2).

These four steps apply to all experimental research, basic or technological. Until basic research has developed theoretical formulations which are confirmed experimentally, technological research is largely "on its own" in its concern with immediately-practical problem solutions. Such research is usually in a stage of isolated and scattered bits of knowledge, lacking the "form" that armchair theorizing is able to give to it, but it does produce a large body of empirical data that may be related by theory.

The kind of research called "surveys" or "status studies" contributes the preliminary information needed for experimental research, basic or technological. These data may give a research worker a "hunch" as to what, if anything, the difficulty is and also provide the factual basis upon which to formulate the difficulty into a problem. If there is no way to trace the difficulty back to theory, the research worker must then invent a form to give to his problem formulation. A very great part of educational research has, probably necessarily, been of this kind.

The distinctive place of curriculum research in the whole area of educational research may now be delineated as follows:

1. *Curriculum research is the work of studying systematically the conditions under which changes in human behavior occur.*

In this sense, curriculum research is closely related to research in those basic sciences that deal with human behavior—psychology, sociology, anthropology, political science, and such—and it may both draw upon the available formulations in those disciplines or contribute to them. Although the interest of the curriculum research

worker lies primarily in the study of the conditions affecting the behavior of pupils in the school, many conditions outside the school will require study if the conditions related to pupil behavior are to be fully understood. Such a research worker needs, in addition to his thorough training in education, a knowledge of the theory and methodology of at least one behavioral science. The primary aim of this research is to contribute to the systematic knowledge of the conditions under which behavior occurs.

2. Curriculum research is also the technological investigation of the kinds of conditions to be set up in schools in order that desired kinds of pupil behavior may occur.

In this sense, curriculum research is primarily related to all of the activities that bring about curriculum change. It includes preliminary surveys, the study of the behavior of individuals in groups, action research, unit and course-of-study construction, analyses of curriculum programs, and studies of communities. It may lead to changes in the community as well as changes in the school. With his basic training in education, this research worker is interested in contributions from a vast variety of areas pointing to the need for curriculum change and ways of bringing it about. The primary aim of this research is to contribute the practical know-how that is needed for curriculum change.

Both of these research areas must be related to each other in such a way as to lay an intellectual foundation leading to the development of systematic curriculum theory. The first area contributes the theoretical basis, the knowledge of the conditions under which human behavior is acquired, maintained and shaped. The second area contributes the practical know-how related to the whole educational enterprise of school and community—what kinds of behavior are needed in the modern world, how these are to be taught and learned, how they are to be maintained, and how they are to be shaped and developed. In these ways, the two research areas contribute to each other, bring theory and practice into continuing active relationship, and lay a systematic foundation for the progressive revision of both theory and practice.

Difficulties in Curriculum Research

At the present time, certain ways of thinking and talking about the curriculum present difficulties with respect to the point of view which has been stated. An examination of some of these difficulties is there-

fore presented in the hope that practical workers in education may see that the common-sense language of everyday talk does not always represent the ways of thinking that work best for other similarly practical workers engaged in curriculum research.

1. The first difficulty is associated with a question recurring in curriculum literature, namely, what do we mean when we say "the curriculum"? The most common usage is that the curriculum means something more or less broadly characterized as "experiences," the boundaries of such presumed experiences being sometimes the pupil's skin, sometimes the classroom walls, sometimes the entire school situation, and then again the whole community. The difficulty, obviously, is that meanings get "out of bounds."

The curriculum sometimes is looked upon as "the total effort of the school" or "the program of studies plus extracurricular activities" or "the effects produced upon pupils." Insistence that "everybody knows" what we mean by "the curriculum" is perhaps one of the very serious obstacles to the achievement of clarity.

The difficulty of achieving clear meanings becomes more evident when "curriculum content" expands into comprehensive all-inclusiveness—facts, subject-matter, exercises, activities, projects, enterprises, ways of behaving—too often without regard as to whether they are "experiences" occurring inside the pupil or whether they are situations contrived by the teacher and "leading to experiences" that are or ought to occur.

The research worker cannot observe "the experience" which is presumably going on inside the pupil. He can observe only behavior and the conditions under which behavior occurs. He knows that experiences inside the pupil must always be an inference from observable behavior. Therefore he needs other terms to name behavior and to name conditions, and he finds some of these names available in the logically related naming systems of the behavioral sciences. He does not say, "There is no such thing as 'experiences.'" He simply finds the name "experiences" lacking in precision for research purposes.

The research worker is also troubled by certain problems of control. He knows that we can control some of the conditions under which pupils learn various behaviors, but he has grave doubts about the "control of experiences." If he is willing to state the conditions under which pupils acquire various ways of behaving, he is doubtful of the wisdom of attempting to control the *kind of experience* the pupil is having. How close is this to "thought control"? It is surely conceivable

that changes in a democratic society, including changes in education, may have their origin in persons who had "unhappy experiences" as they learned their ways of behaving and who are therefore determined to change certain kinds of conditions under which behavior occurs. How to relate "having experiences" to "learning ways of behaving" is a difficulty of deepest complexity.

2. A second difficulty may be stated in hypothetical quotation as follows: "We already know what the main problems of the curriculum are, and now all we have to do is to work out the solutions." This way of thinking equates two different behaviors, namely, that of "feeling a difficulty" with that of "having a problem formulated." Curriculum study in many respects is in the stage represented by a person who feels that something is the matter but lacks the means of formulating what-the-matter-is into a problem. One of the very serious difficulties of curriculum study, therefore, is that methodology too often is not available by which to formulate felt difficulties into problems amenable to the methodology of experimental testing. The assumption that we already know what the problems are precludes the great amount of analytical work required to develop methodology for formulating difficulties into problems.

3. A third difficulty is the lack of realization that a large part of the curriculum, especially the part known as "the program of studies," has come down to modern times through a tradition antedating the advent of modern experimental science. Nobody has been able to say just what a modern curriculum would be if it were based as thoroughly as possible upon the evidence of experimental research. The school curriculum at the present time can be described as a congested mass of more or less organized subject matters and activities, some of which have been handed down by tradition and others which have been prescribed by legislatures, by state departments of education, by boards of education, by pressure groups, by committees and commissions and organizations, lay and professional, of all kinds. The school might better be recognized for what it is—a social institution in large measure proceeding by trial and error, attempting within an evolving democratic culture pattern to produce in all learners on the basis of tradition and experimental evidence the most intelligently adaptive modes of behavior which can be induced, maintained or developed. A recognition of the amount of tradition and trial-and-error in present procedures is the first step toward fundamental curriculum study.

4. A fourth difficulty is that the curriculum is too often too narrowly

defined; however, not in the same context as the all-inclusive use of the term "experience." The curriculum needs to be conceived more broadly in the context of the totality of factors affecting pupil behavior patterns. What, for example, is the effect upon pupil behavior when (a) old subjects are dropped and new subjects are added, (b) new textbooks are introduced, (c) changes are made in the teaching staff, (d) new buildings are constructed or old buildings renovated, (e) playground space is expanded or added, (f) new study materials, new equipment, and new facilities are provided, (g) school rules and regulations are changed, (h) the staff tries out a "new marking system," (i) the school engages in such activities as fund-raising drives, war work, emergency flood control and fire-fighting, or (j) a community itself changes from a residential to a factory area?

What is the effect upon pupil behavior of (a) the way the hot-lunch room is managed? (b) the library? (c) the extracurricular program? In what ways do the custodial staff influence pupil behavior, or the bus drivers, or the secretarial staff?

When the curriculum includes only those "experiences" within the program of studies as the school's responsibility, obviously a great deal of learning of behavior goes on for which nobody assumes responsibility. The obligation of curriculum study is to investigate the wider constellation of factors having an impact upon pupil behavior.

5. A fifth difficulty is the demand that curriculum study direct itself to immediately practical concerns as distinguished from those concerns which are presumably "impractically theoretical." An understanding of the relationships between systematic knowledge and practical know-how should clear up this kind of difficulty. A further objection to the demand for immediately practical research is that ends and objectives are presumed to be "known" or "evident" beforehand. Such thinking equates "we know what we want" with "we know what the consequences of our choices are." Both systematically theoretical and immediately practical research can contribute to an understanding of "what is *worth* wanting?" and "what do we want that we can *get*?" The values involved in choices cannot be said to be any the less just because value judgments are informed.

Research has developed some interesting evidence favorable toward on-the-job research by school staff members with respect to those difficulties which are of immediate and practical concern. There is evidence that (a) if teachers are given an opportunity to study a situation, they will seek ways of bringing about improvement and that (b) those whose behavior will be affected by a problem-solution

are also those who will participate effectively in formulating and solving the particular problem.

Arriving at practical decisions by way of practical judgment is not the same as arriving at practical decisions by way of study and research. Practical decisions usually involve the judgments of individuals on a question such as, "What do you think we should do about this?" Research and research findings may be used in the making of such a decision, but they are not a necessary part of it.

In the practical procedures of "action research" a difficulty must first be *felt*, frequently in an inchoate form like "this doesn't work right" or "something is the matter with this." Considerable study, analysis and research are usually required before anyone can come up with some idea of what-the-matter-is. In due time there may be several ideas about what-the-matter-is with respect to the single difficulty under study. These various "hypotheses" must then be so formulated into problems that methods can be found for solving such problems. But the problem solutions, when arrived at, may not solve the original difficulty—nobody had hit upon what-the-matter-was. And the whole procedure may have to be initiated all over again, the one advantage being the experience gained from what has been done. A "lucky hunch," or a "crucial experiment," is one in which the problem solution so confirms the hypothesis that the original difficulty is cleared up.

To insist that research be "practical" does not make research "easy." The procedure, however, known as "action research" does have so much to commend it that one might well hope to see a time when school staff members would spend a part of each school day in that kind of activity as a regularly scheduled phase of school work.

6. A sixth difficulty of curriculum study is one of long standing. It is the difficulty of discriminating within the school program of studies among those courses which are broadly developmental of a variety of ways of behaving and those which are developmental of comparatively more specific ways of behaving. Recognition comes to mind at once, for example, that differences do exist between "a real core" and "straight English" or "straight American history." But the differences that seemed evident years ago have become blurred with the "enrichment" of courses that once were definitely "academic."

The difficulty of making clear-cut distinctions becomes important when curriculum workers have to consider the introduction of new courses or the reorganization of existing courses. If "a difference to be a difference must *make* a difference," just what difference does the

presumed change make to what? Are criteria available for determining exactly how the new differs from the old? And if this is not a sufficient difficulty, there is the whole complex of factors involved in the totality of conditions under which the behavior of pupils changes just because they go to school.

The need to make clear distinctions is crucially important at a time when national survival itself would seem to be at stake over the long pull. Are the schools doing their part in helping to develop individuals who will be able to make the kinds of value choices that will lead to the survival of present society in the years ahead? Are we as curriculum workers making intelligently informed value choices when we change human behavior on the basis of (a) practical judgment, (b) results of surveys of current practices, and (c) response to the wishes of pressure groups? Is there any way of distinguishing between that which is wanted and that which is worth wanting, between that which is desired and that which is desirable? To understate the matter, at least something would appear to be at stake!

Prospects in Curriculum Research

If there are difficulties in thinking and talking about the curriculum, the curriculum worker may be happy that there are also some pleasant prospects for curriculum research. The primary need is for studies that will clear up some of the questions raised in preceding chapters of this yearbook with respect to "What is the total educational enterprise?" There are questions about what kinds of behavior can best be learned in school and what kinds best learned in the community. There are further questions about the relationships between community or cultural conditions and school conditions and the kinds of pupil behavior patterns that result from both, separately and, in interaction. The task for research is formidable, and much needs to be done.

1. The entire program of studies can be subjected to a thorough analysis from the viewpoint of the curriculum as "the conditions under which behavior is acquired, maintained and shaped."

Some courses or subjects appear to consist mainly of the actual behavior which is to be acquired, for example, typing. Other more general courses appear to represent conditions under which various hoped-for behaviors may be acquired or maintained or shaped, for example, social studies in almost any grade. Much of the difference of opinion over what "general education" means may have its origin in

uncertainty as to what kinds of conditions lead to what kinds of behavior. The amount of overlapping, whether of controlling conditions or of behavior-to-be-learned, in such general courses as industrial arts, general science, core, and social studies is practically "an unknown" in the present stage of curriculum research.

Many courses commonly called "general" can therefore be analyzed and studied experimentally to determine (a) the extent to which they represent similar conditions producing similar pupil behaviors and (b) the extent to which they represent dissimilar conditions producing dissimilar pupil behaviors.

The common-sense language of everyday curriculum talk simply lacks the precision required for this kind of research. The only resources available to the research worker for giving names in systematic, logical relationship to both conditions and behaviors are the various behavioral sciences. Curriculum research must therefore draw upon the behavioral sciences for all they may have to offer along the lines of theoretical frameworks and experimental methodology. The aim is simply to determine how various behaviors as dependent variables are a function of certain conditions as independent variables.

In *Elmtown's Youth*, for example, a sociological framework was employed to test the hypothesis that a child's behavior is a function of his social-class status. Clinical psychologists may hypothesize that a youth's emotional behavior patterns are a function of conditions prevailing in early infancy. Others may like to think of behavior as a function of the individual's perception of self within the phenomenal field. Or, behavior may be a function of aversive stimulation, deprivation, satiation, or a history of reinforcement. However they may differ in their formulations, most students of human behavior appear to agree that behavior is a function of the state of the organism and the state of the field at the time behavior occurs. The curriculum research worker can draw upon a considerable body of formulations for whatever these may be worth.

On the other hand, many situations arise in curriculum research in which the behavioral sciences are at best only a modest resource. Occasions arise in which "new names" are needed for presumed behaviors as well as for the presumed conditions under which these behaviors occur. To invent new names for presumed entities in systematic logical relationship is "to theorize" in the same sense as theorizing within the framework and by means of the concepts of the accepted research disciplines. We may expect more of this kind of theorizing over the years as curriculum research increasingly "goes

experimental." Curriculum research would then be in its own way and in its own right something reasonably close to a research discipline contributing to knowledge of human behavior and of the conditions under which behaviors occur.

The preceding paragraph points up the need for curriculum research workers to become thoroughly familiar with the theoretical framework and methodology of at least one of the behavioral sciences. An insight into the theory and methods of related sciences can be gained from a study of the logical foundations of these sciences. At the present time, many a curriculum worker could acknowledge as painfully true the statement that he received a doctorate in education without having been required to become thoroughly familiar with even one of the behavioral sciences. As time passes, the development of a curriculum worker may conceivably become an increasingly difficult and arduous discipline.

This discussion of the experimental analysis of the program of studies has been an attempt to make clear the possibility of relating curriculum theory and practice through relating theoretically experimental research to the practical technology of curriculum construction. The analysis of the program of studies would seem to be only the beginning of a long process.

2. The program of activities known as the "extracurriculum" can be studied and analyzed in ways similar to those employed in analyzing the program of studies.

Some activities appear to represent ways of behaving in which pupils engage for their own sake as pure fun and enjoyment. As such, these activities may also represent the conditions under which pupils remain in school and acquire the ways of behaving represented in the program of studies. Other activities represent ways of behaving in the form of practical, cultural arts in which the pupils wish to achieve varying degrees of skill. The peculiar thing about the extracurricular program is that it seems to represent ways of behaving which are much easier to identify than the ways of behaving which are represented in many subjects in the program of studies.

Many conflicts as to the priority of the program of studies or the extracurricular program will not be cleared up until experimental analysis has demonstrated the relationships between conditions and behavior. If activities represent largely the conditions generally called "motivational," then research will have to make clear what kinds of such conditions are necessary for the learning of presumably more

important behavior. If activities represent behaviors to be learned which are important in our society, then there is little point in differentiating between behaviors learned as either extracurricular or curricular.

3. Curriculum research can investigate the totality of conditions that have an impact upon pupil behavior patterns, which could include the program of studies, the extracurricular program, factors in the life of the school as an institution (marking system, administrative regulations, disciplinary procedures, school plant, etc.), and the influence of the community or culture.

To talk about the "whole educational enterprise" is simply to talk about *all* of those conditions under which the behavior of youth occurs in our society. The educator's concern is with all of the conditions under which infants eventually emerge as adults, and his concern with the conditions under which behavior occurs in schools is only a special manifestation of his over-all concern. Each of the chapters in this year-book deals in its special way with the fundamental question of how American communities are organized for the rearing and training of youth.

The twofold task of curriculum research in this vast area is to determine, first, the extent to which pupil behavior is or ought to be related to the learning conditions of the school and, second, the extent to which pupil behavior is or ought to be related to the learning conditions of the community. The basic aim is still the aim of all curriculum research, namely, to make clear the kinds of conditions under which kinds of behavior occur.

Great strides have been made over the years in that group of sciences now known as "behavioral sciences"—psychology, sociology, economics, political science, and anthropology, all of which deal in some way with human behavior. Areas of research like group dynamics, child study, and human relations have developed to such an extent that a clear-cut distinction between "applied" and "theoretical" is difficult to make. A similarly clear-cut distinction is just as difficult in educational psychology and in the many forms of psychology of personality. Furthermore, research in the behavioral sciences may be described as so "wide open" at the present time that no one can "legislate" the particular area which any given research activity shall pre-empt.

As curriculum research, therefore, becomes increasingly concerned with "the total constellation of factors influencing pupil behavior patterns," we cannot legislate the directions in which such research must

go. There is little doubt, as Dewey suggested, that this kind of educational science will draw upon the various behavioral sciences. This drawing-upon occurs at the present time in at least the following ways:

a. Behavioral sciences are a source of "names" to give to ways of behaving less accurately named in the expressions of everyday, common-sense language.

b. Behavioral sciences are a source of "names" for presumed factors presumably influencing behavior in a stated hypothetical constellation of presumed factors.

c. Behavioral sciences are a source of methodology for experimentally testing statements about kinds of behavior that occur under kinds of conditions.

d. Behavioral sciences are a source of theory for staking out an area to be systematically studied, thus influencing value judgments as to what is "worth doing."

e. Behavioral sciences are a source of tested methodology for experimental operations, thus influencing value judgments as to what is "worth trying."

4. Research can now begin to clear up some of the difficulties we have with "verbal behavior," how such behavior is related to other pupil behavior, and what its place is in the school programs.

Verbal behavior seems to be the main element in such subjects as English, algebra, geometry, history, physics, chemistry, in fact the main component of all that which we call "knowledge." Strangely, "verbalization" has also been called "the curse of education." Sometimes a pupil's verbal behavior is described as "merely verbal," presumably when the behavior of recall is strong but lacking in what is described as "understanding." And yet a pupil whose recall behavior was very great would have little difficulty in graduating from both high school and college and probably going on to a doctor's degree.

Professor Skinner of Harvard might conceivably describe a student who "knows history" as one who has read much history which he can recall, one who "understands history" as one who can employ the words of historians in the same situation, one who "does not understand history" as one who cannot use the language of textbook authors in the same situation, and one who "misunderstands history" as one who used the wrong words in the same situation. The good student in an academic class in history is perhaps the one whose verbal behavior becomes more and more like that of the authors of the textbook.

The science of linguistics has already raised questions about the

teaching of reading and writing in schools and has much more to say about such verbal behavior as listening and speaking. Other areas like semantics, pragmatics, and syntactics have much to offer the research worker interested in verbal behavior. A good foundation for research into verbal behavior has been laid over the years by the many investigators who have studied the whole field of language arts. For the research worker, the important thing is that many resources of theory and methodology are now available for the investigation of verbal behavior on several fronts.

5. Research can contribute to a more careful formulation of the objectives of education

In the context of this chapter, educational objectives can be classified into two main groups: (a) those objectives which state the specific behaviors that pupils are to learn and (b) those objectives that are so stated as to represent primarily the conditions under which hoped-for behaviors are to occur.

Workers in measurement have long requested that educational objectives be stated in behavioral language so that measuring instruments can be designed to appraise the kind and amount of behavior learned. When objectives are so stated that they refer neither to behavior to be learned nor to conditions under which behavior is to occur, they are meaningless for research purposes, although they may be meaningful for purposes of public relations programs.

Educators are sometimes reluctant to state objectives in behavioral terms because they fear that certain "intangibles" will be passed over. This reluctance is justified when objectives are written for public consumption to maintain and stimulate interest in education. In the language of science, however, "the world is only what we know it as," and the advance of science is a long history of intangibles that are ultimately touched.

A good many years have passed since Dewey expressed himself in *Sources of a Science of Education*. While he described teaching as an art, he also showed how the teacher's art might be informed by the contributions of educational science. And, further, while education as a cultural activity is no science, educational science as a practical technology would "draw upon" the various legitimate sciences.

The modest proposal of this chapter is that educational science as curriculum research will not only draw upon the various sciences but will also make a praiseworthy contribution to systematic knowledge of human behavior and the conditions under which it occurs.

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